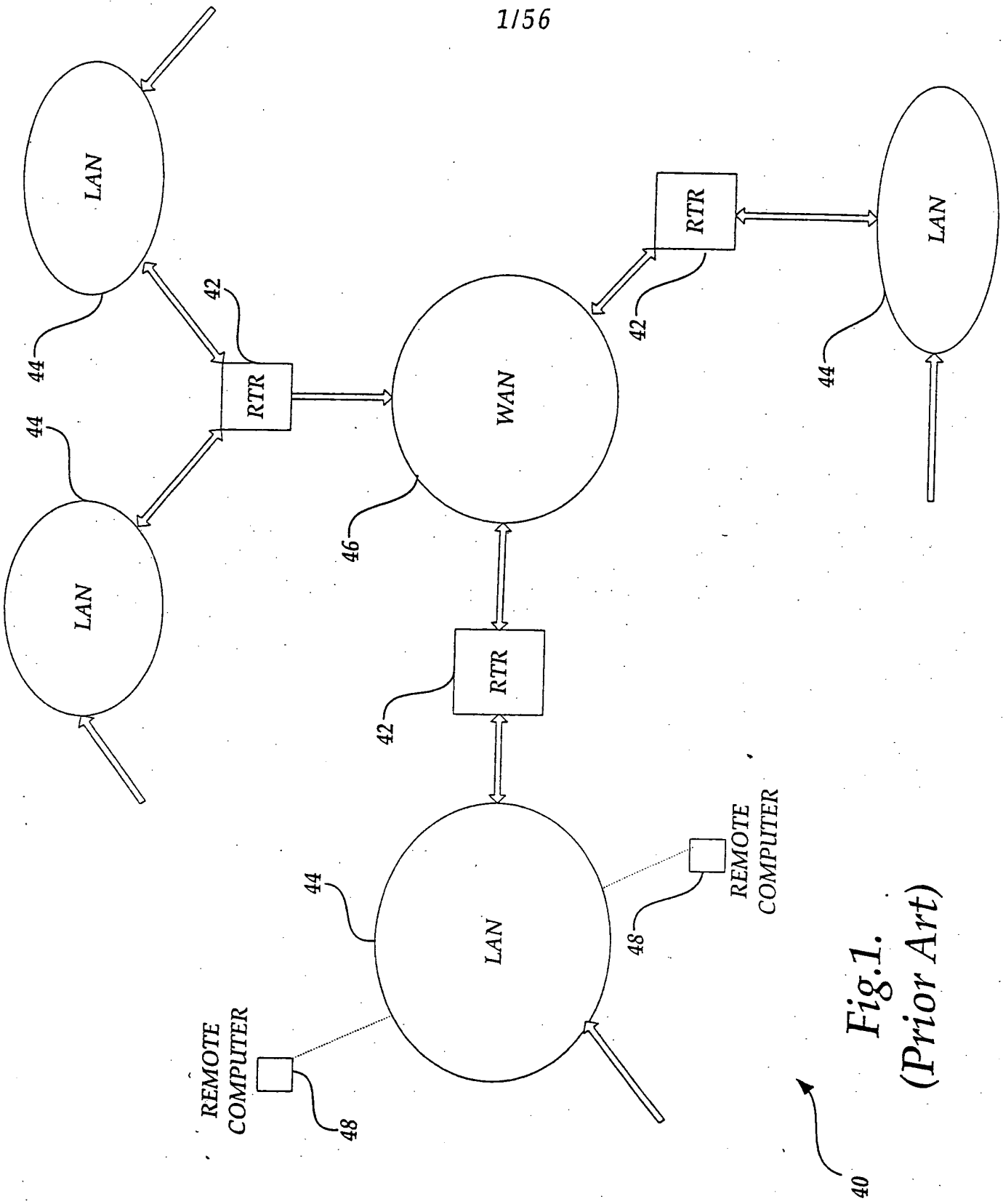

Fig.1.
(Prior Art)

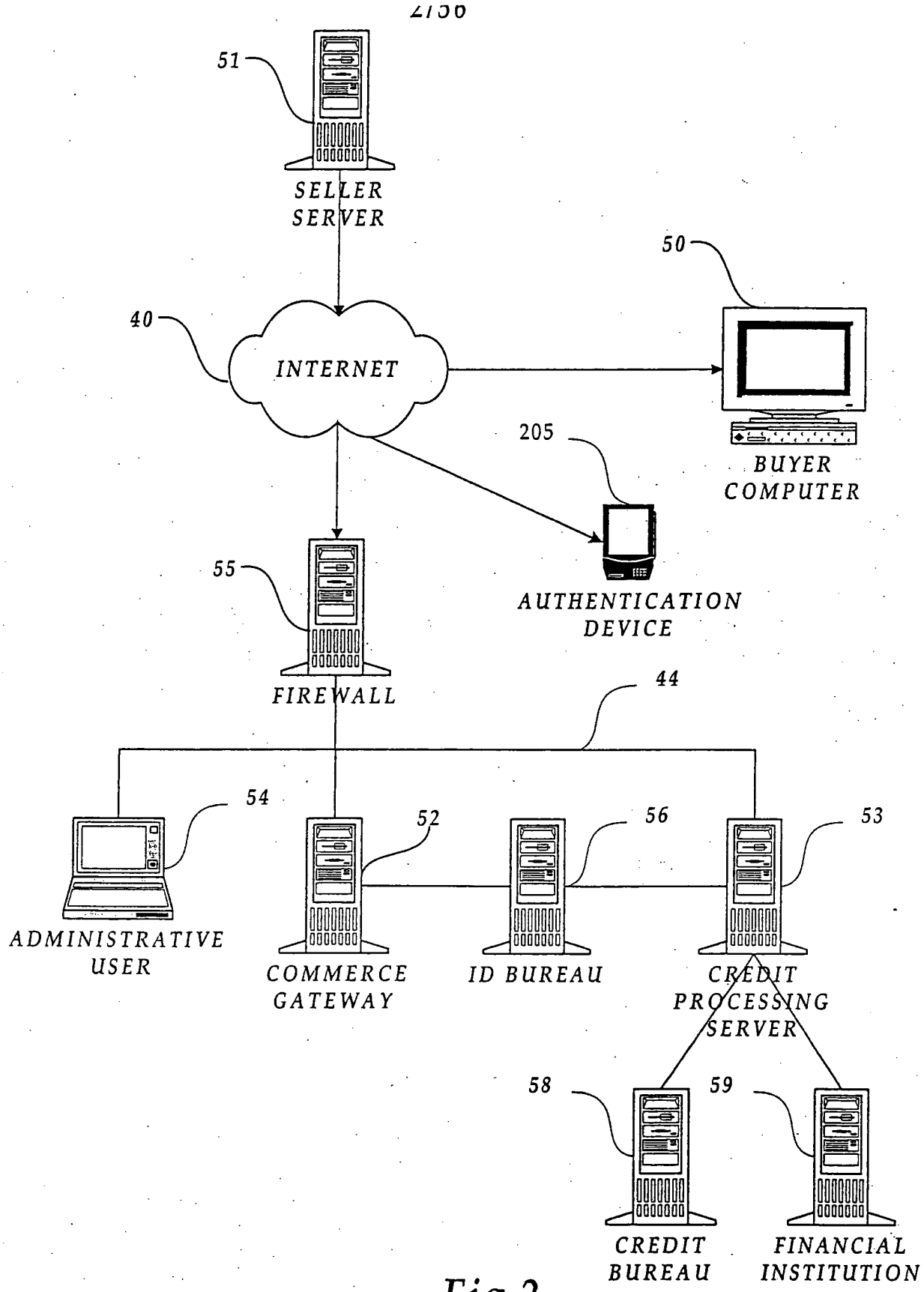
2100
51
SELLER SERVER
50
40
INTERNET
BUYER COMPUTER
205
AUTHENTICATION DEVICE
55
FIREWALL
44
54
52
56
53
ADMINISTRATIVE USER
COMMERCE GATEWAY
ID BUREAU
CREDIT PROCESSING SERVER
58
59
CREDIT BUREAU
FINANCIAL INSTITUTION

Fig.2.

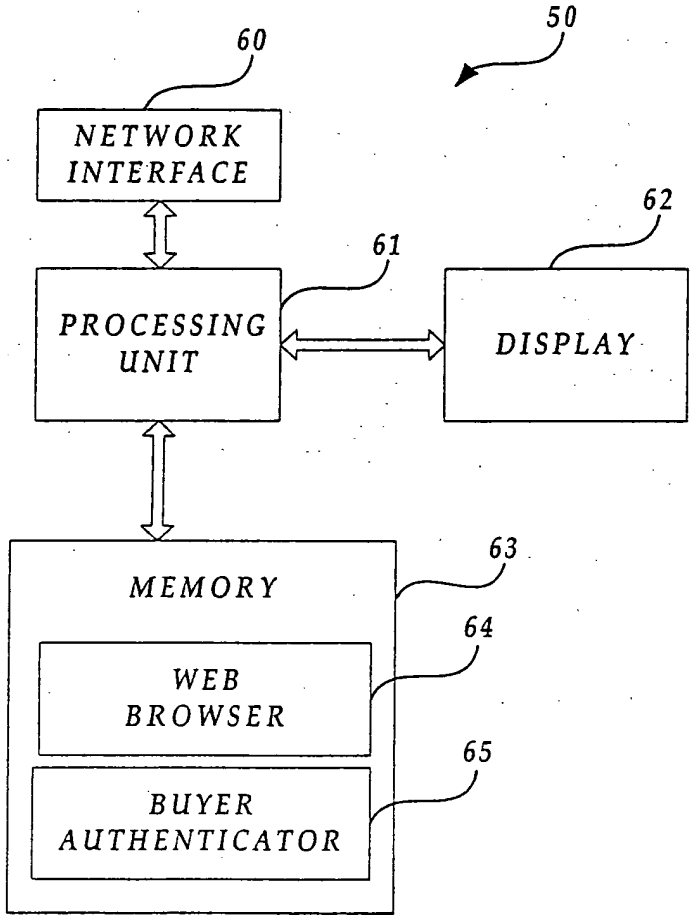
50
60
NETWORK INTERFACE
62
61
PROCESSING UNIT
DISPLAY
63
MEMORY
64
WEB BROWSER
65
BUYER AUTHENTICATOR

Fig.3.

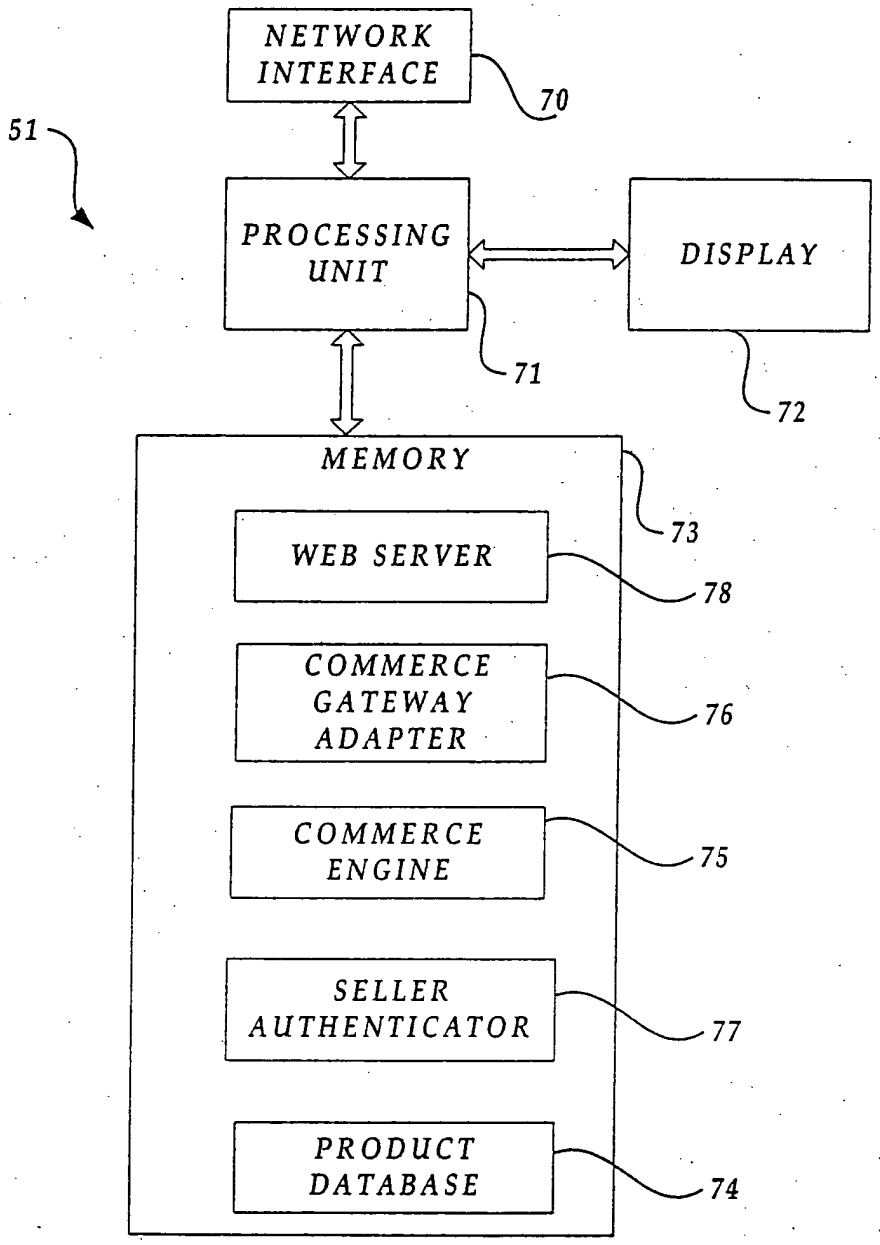
NETWORK INTERFACE
70
51
PROCESSING UNIT
DISPLAY
71
72
MEMORY
73
WEB SERVER
78
COMMERCE GATEWAY ADAPTER
76
COMMERCE ENGINE
75
SELLER AUTHENTICATOR
77
PRODUCT DATABASE
74

Fig.4.

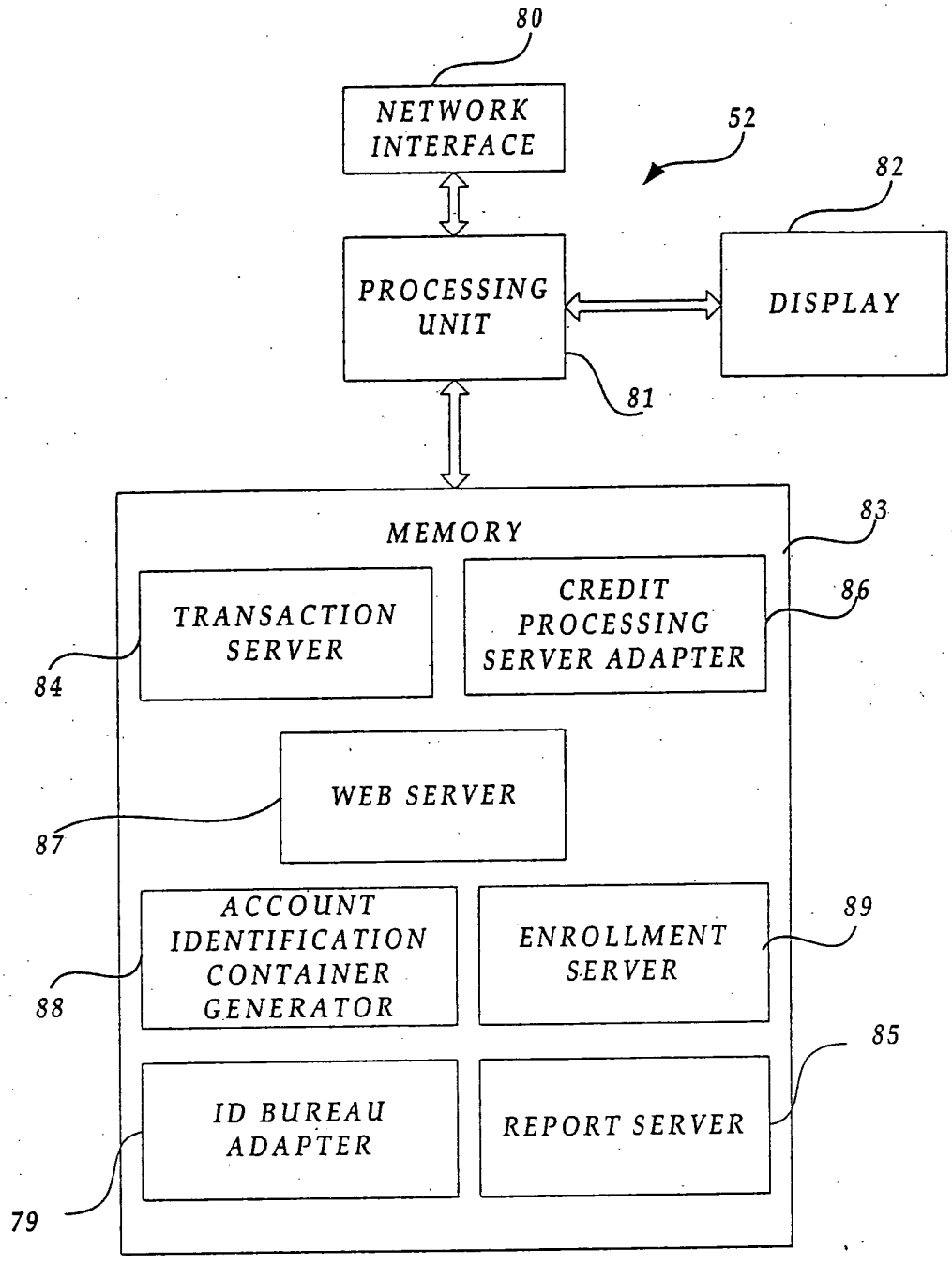
80
NETWORK INTERFACE
52
82
PROCESSING UNIT
DISPLAY
81
MEMORY
83
TRANSACTION SERVER
84
CREDIT PROCESSING SERVER ADAPTER
86
WEB SERVER
87
ACCOUNT IDENTIFICATION CONTAINER GENERATOR
88
ENROLLMENT SERVER
89
ID BUREAU ADAPTER
79
REPORT SERVER
85

Fig.5.

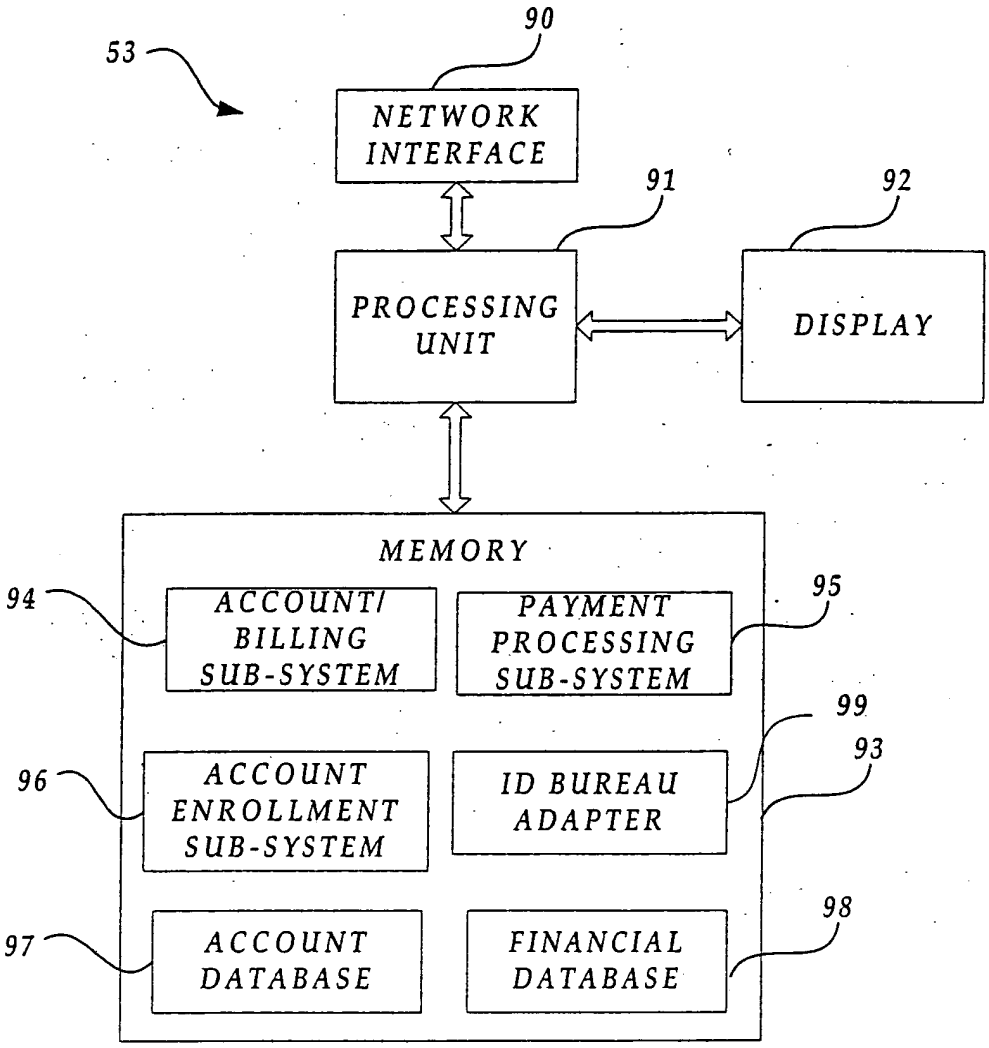
53
90
NETWORK INTERFACE
91
92
PROCESSING UNIT
DISPLAY
MEMORY
94
ACCOUNT/ BILLING SUB-SYSTEM
95
PAYMENT PROCESSING SUB-SYSTEM
99
93
96
ACCOUNT ENROLLMENT SUB-SYSTEM
ID BUREAU ADAPTER
98
97
ACCOUNT DATABASE
FINANCIAL DATABASE

Fig.6.

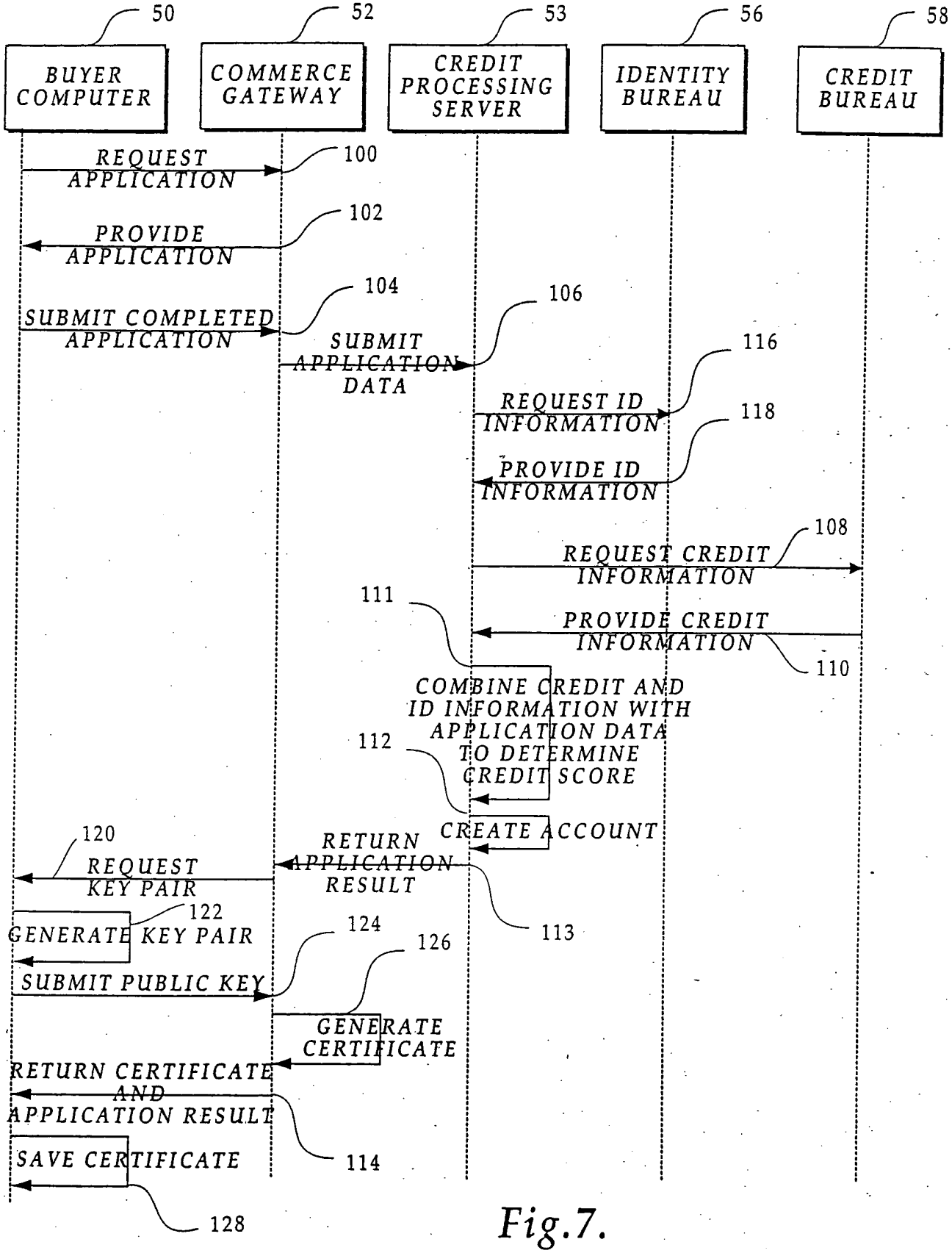
50
52
53
56
58
BUYER COMPUTER
COMMERCE GATEWAY
CREDIT PROCESSING SERVER
IDENTITY BUREAU
CREDIT BUREAU
REQUEST APPLICATION
100
PROVIDE APPLICATION
102
SUBMIT COMPLETED APPLICATION
104
SUBMIT APPLICATION DATA
106
REQUEST ID INFORMATION
116
PROVIDE ID INFORMATION
118
REQUEST CREDIT INFORMATION
108
PROVIDE CREDIT INFORMATION
110
111
COMBINE CREDIT AND ID INFORMATION WITH APPLICATION DATA TO DETERMINE CREDIT SCORE
112
CREATE ACCOUNT
RETURN APPLICATION RESULT
113
120
REQUEST KEY PAIR
GENERATE KEY PAIR
122
SUBMIT PUBLIC KEY
124
GENERATE CERTIFICATE
126
RETURN CERTIFICATE AND APPLICATION RESULT
114
SAVE CERTIFICATE
128

Fig.7.

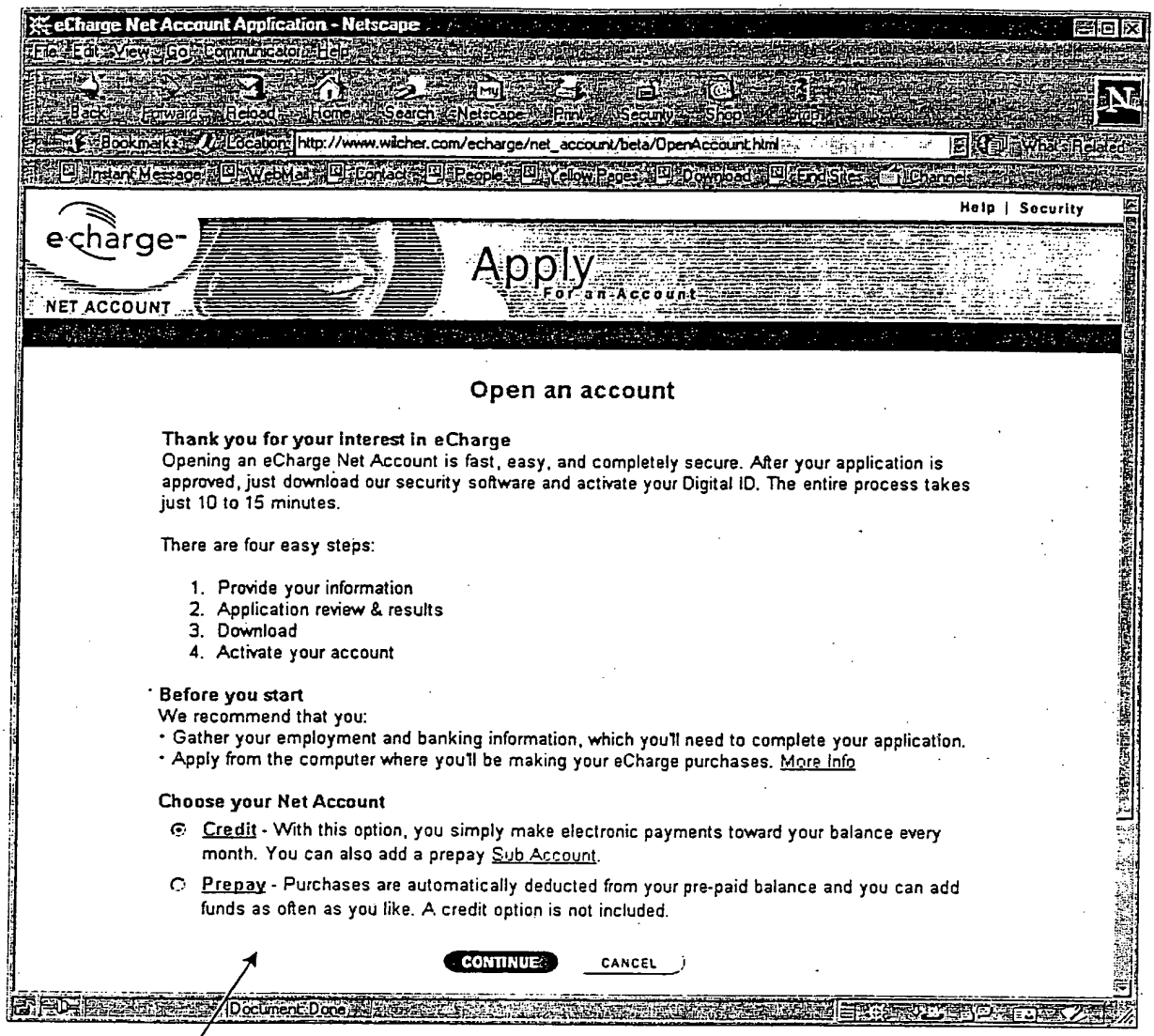
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Location: http://www.wilcher.com/echarge/net_account/beta/OpenAccount.html
What's Related
Instant Message WebMail Contacts People Yellow Pages Download End Sites Channels
Help | Security
e-charge
NET ACCOUNT
Apply
For an Account
Open an account
Thank you for your interest in eCharge
Opening an eCharge Net Account is fast, easy, and completely secure. After your application is approved, just download our security software and activate your Digital ID. The entire process takes just 10 to 15 minutes.
There are four easy steps:
1. Provide your information
2. Application review & results
3. Download
4. Activate your account
Before you start
We recommend that you:
• Gather your employment and banking information, which you'll need to complete your application.
• Apply from the computer where you'll be making your eCharge purchases. More Info
Choose your Net Account
Credit - With this option, you simply make electronic payments toward your balance every month. You can also add a prepay Sub Account.
Prepay - Purchases are automatically deducted from your pre-paid balance and you can add funds as often as you like. A credit option is not included.
CONTINUE
CANCEL
Document: Done
600

Fig.8A.

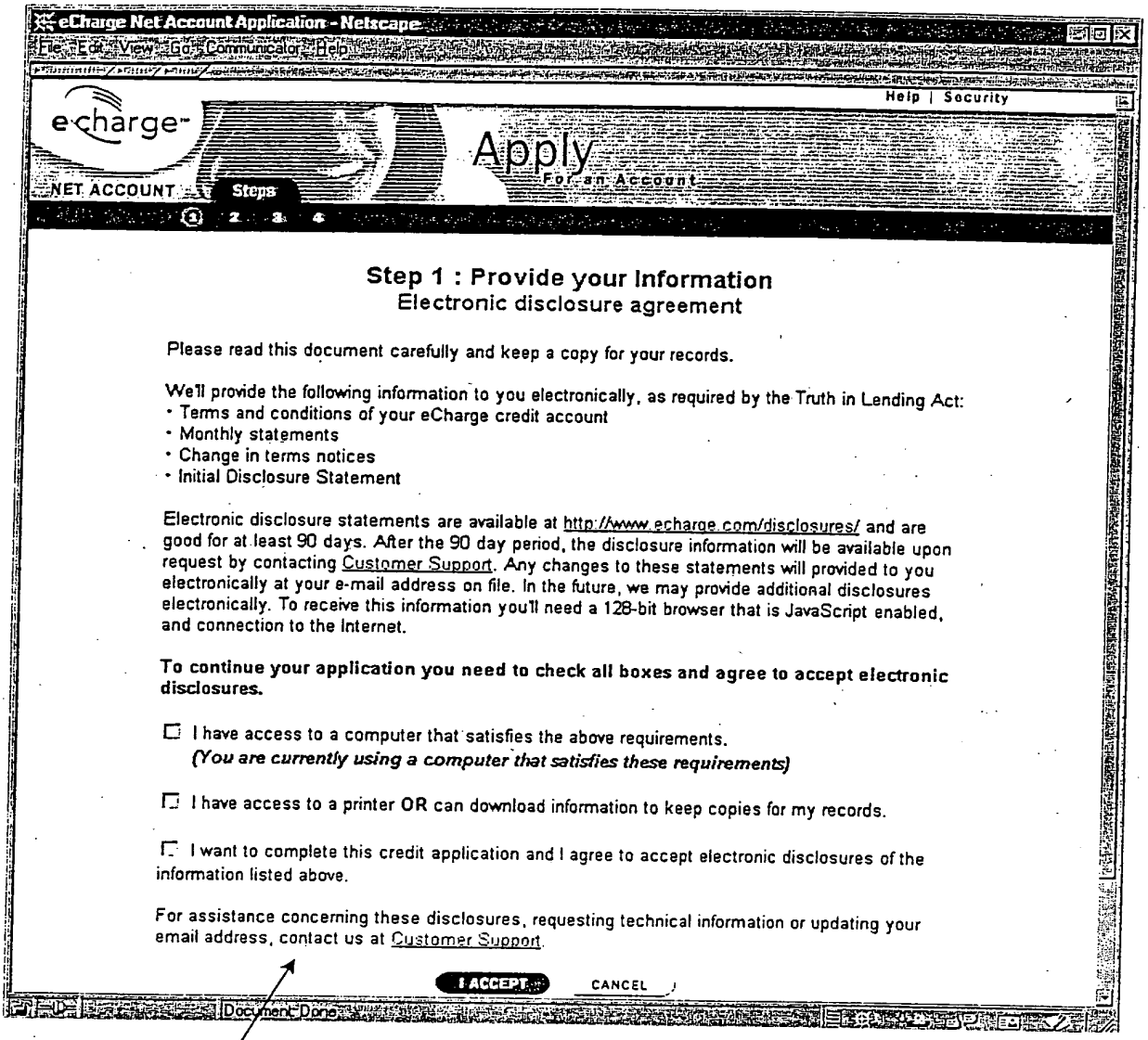
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
e-charge
Apply For an Account
NET ACCOUNT Steps
1 2 3 4
Step 1 : Provide your Information
Electronic disclosure agreement
Please read this document carefully and keep a copy for your records.
We'll provide the following information to you electronically, as required by the Truth in Lending Act:
• Terms and conditions of your eCharge credit account
• Monthly statements
• Change in terms notices
• Initial Disclosure Statement
Electronic disclosure statements are available at http://www.echarge.com/disclosures/ and are good for at least 90 days. After the 90 day period, the disclosure information will be available upon request by contacting Customer Support. Any changes to these statements will provided to you electronically at your e-mail address on file. In the future, we may provide additional disclosures electronically. To receive this information you'll need a 128-bit browser that is JavaScript enabled, and connection to the Internet.
To continue your application you need to check all boxes and agree to accept electronic disclosures.
I have access to a computer that satisfies the above requirements.
(You are currently using a computer that satisfies these requirements)
I have access to a printer OR can download information to keep copies for my records.
I want to complete this credit application and I agree to accept electronic disclosures of the information listed above.
For assistance concerning these disclosures, requesting technical information or updating your email address, contact us at Customer Support.
I ACCEPT
CANCEL
Document Done
605

Fig.8B.

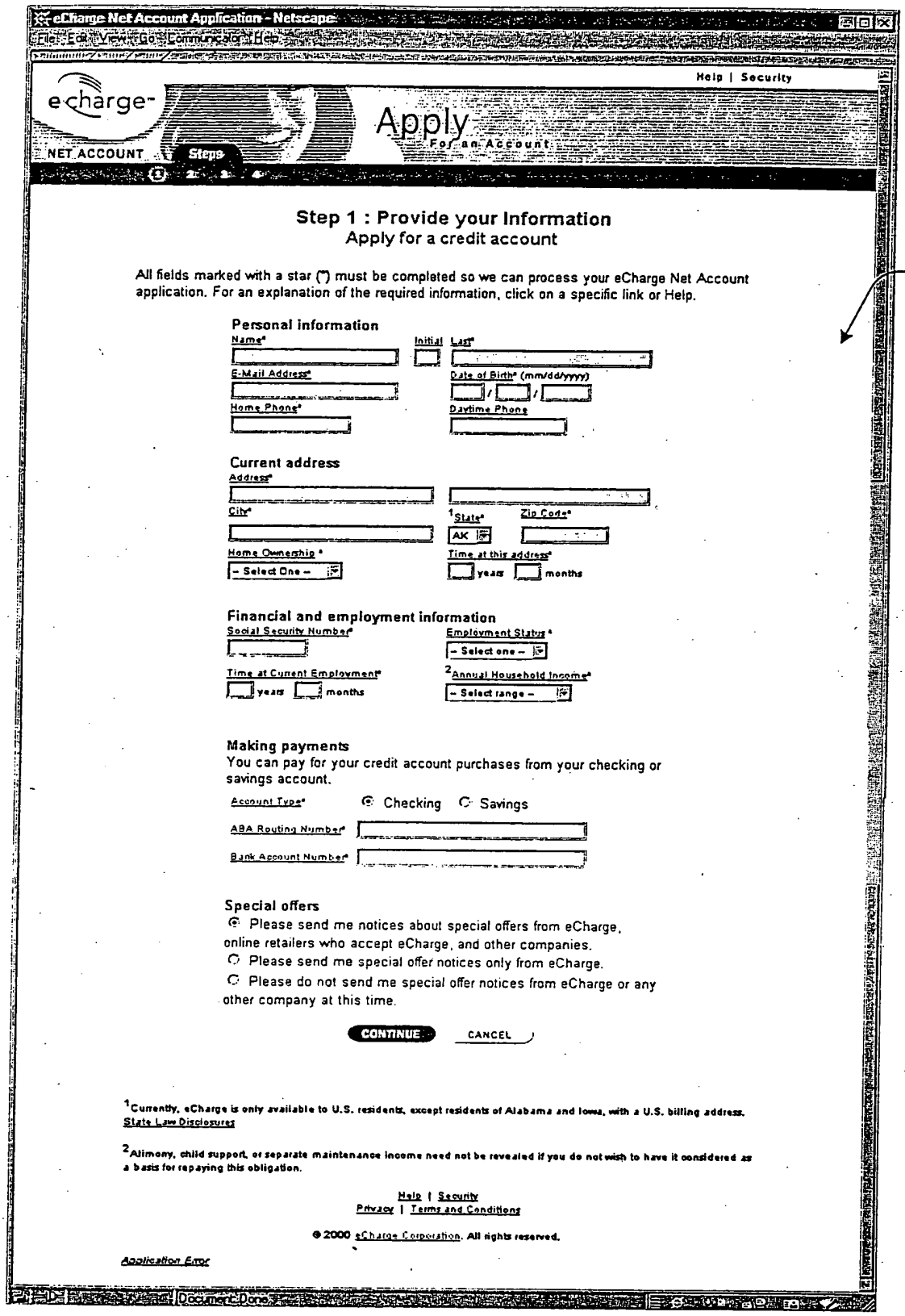
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
e-charge
NET ACCOUNT
Steps
Apply
For an Account
Step 1 : Provide your Information
Apply for a credit account
All fields marked with a star (*) must be completed so we can process your eCharge Net Account application. For an explanation of the required information, click on a specific link or Help.
610
Personal information
Name*
Initial
Last*
E-Mail Address*
Date of Birth* (mm/dd/yyyy)
Home Phone*
Daytime Phone
Current address
Address*
City*
1State*
AK
Zip Code*
Home Ownership *
- Select One -
Time at this address*
years
months
Financial and employment information
Social Security Number*
Employment Status *
- Select one -
Time at Current Employment*
years
months
2Annual Household Income*
- Select range -
Making payments
You can pay for your credit account purchases from your checking or savings account.
Account Type*
Checking
Savings
ABA Routing Number*
Bank Account Number*
Special offers
Please send me notices about special offers from eCharge, online retailers who accept eCharge, and other companies.
Please send me special offer notices only from eCharge.
Please do not send me special offer notices from eCharge or any other company at this time.
CONTINUE
CANCEL
1Currently, eCharge is only available to U.S. residents, except residents of Alabama and Iowa, with a U.S. billing address.
State Law Disclosures
2Alimony, child support, or separate maintenance income need not be revealed if you do not wish to have it considered as a basis for repaying this obligation.
Help | Security
Privacy | Terms and Conditions
© 2000 eCharge Corporation. All rights reserved.
Application Error
Document Done

Fig.8C.

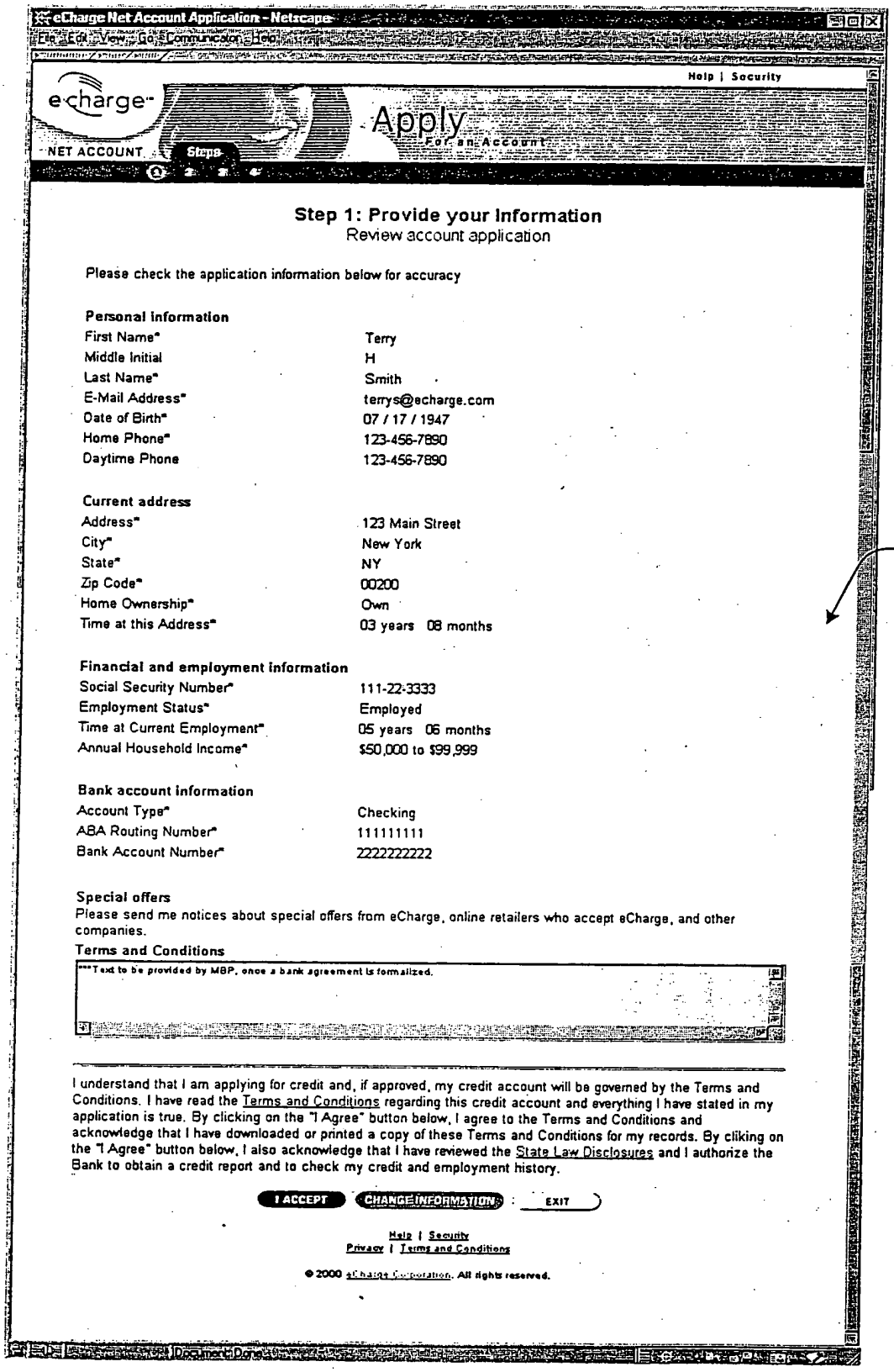
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
echarge
NET ACCOUNT
Steps
Apply
For an Account
Step 1: Provide your Information
Review account application
Please check the application information below for accuracy
Personal information
First Name*
Terry
Middle Initial
H
Last Name*
Smith
E-Mail Address*
terrys@echarge.com
Date of Birth*
07 / 17 / 1947
Home Phone*
123-456-7890
Daytime Phone
123-456-7890
Current address
Address*
123 Main Street
City*
New York
State*
NY
Zip Code*
00200
Home Ownership*
Own
Time at this Address*
03 years 08 months
615
Financial and employment information
Social Security Number*
111-22-3333
Employment Status*
Employed
Time at Current Employment*
05 years 06 months
Annual Household Income*
$50,000 to $99,999
Bank account information
Account Type*
Checking
ABA Routing Number*
111111111
Bank Account Number*
2222222222
Special offers
Please send me notices about special offers from eCharge, online retailers who accept eCharge, and other companies.
Terms and Conditions
***Text to be provided by MBP, once a bank agreement is formalized.
I understand that I am applying for credit and, if approved, my credit account will be governed by the Terms and Conditions. I have read the Terms and Conditions regarding this credit account and everything I have stated in my application is true. By clicking on the "I Agree" button below, I agree to the Terms and Conditions and acknowledge that I have downloaded or printed a copy of these Terms and Conditions for my records. By cliking on the "I Agree" button below, I also acknowledge that I have reviewed the State Law Disclosures and I authorize the Bank to obtain a credit report and to check my credit and employment history.
I ACCEPT
CHANGE INFORMATION
EXIT
Help | Security
Privacy | Terms and Conditions
© 2000 eCharge Corporation. All rights reserved.

Fig.8D.

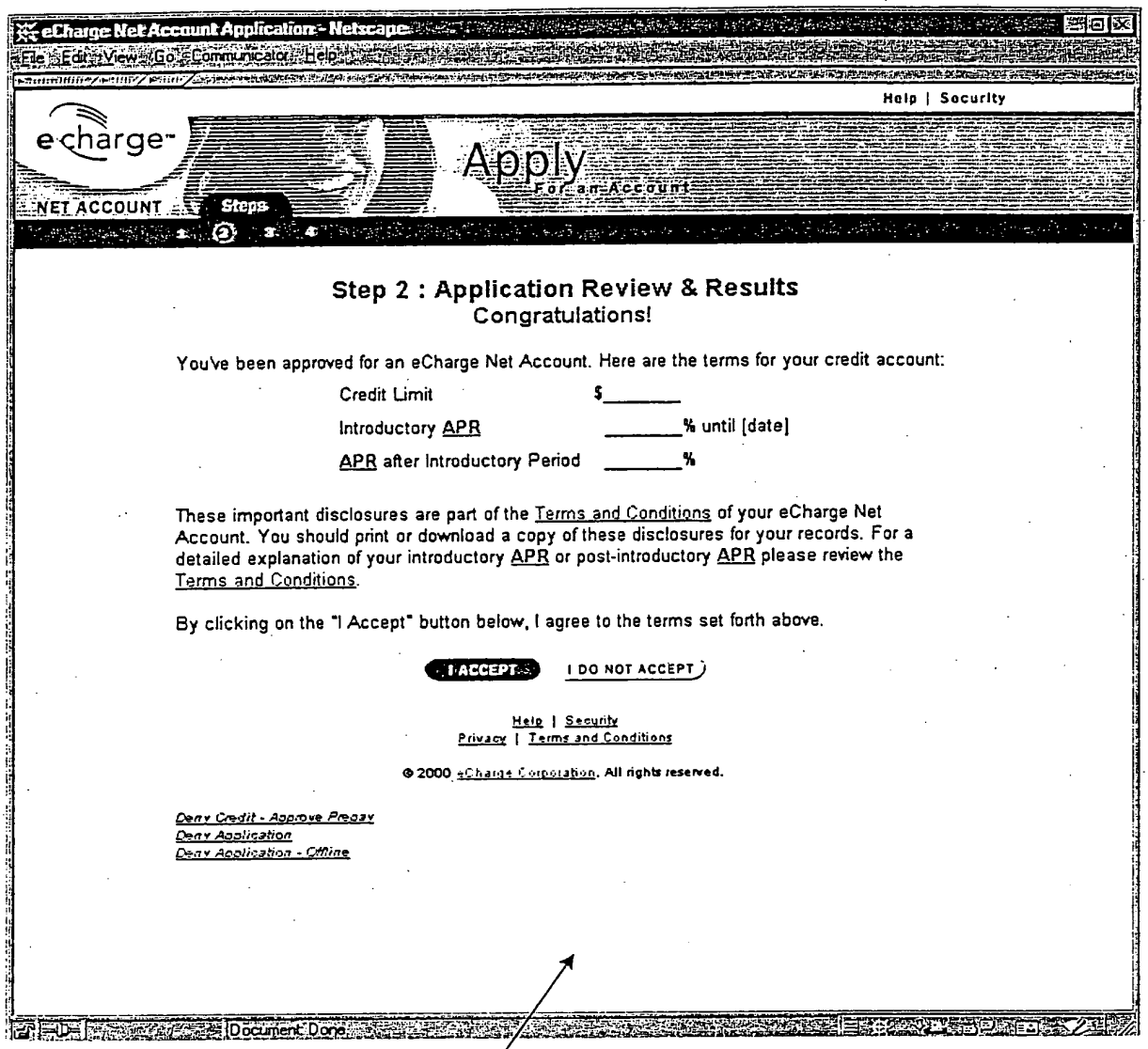
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
echarge
Apply
For an Account
NET ACCOUNT
Steps
1 2 3 4
Step 2 : Application Review & Results
Congratulations!
You've been approved for an eCharge Net Account. Here are the terms for your credit account:
Credit Limit $_____
Introductory APR _____% until [date]
APR after Introductory Period _____%
These important disclosures are part of the Terms and Conditions of your eCharge Net Account. You should print or download a copy of these disclosures for your records. For a detailed explanation of your introductory APR or post-introductory APR please review the Terms and Conditions.
By clicking on the "I Accept" button below, I agree to the terms set forth above.
I ACCEPT
I DO NOT ACCEPT
Help | Security
Privacy | Terms and Conditions
© 2000 eCharge Corporation. All rights reserved.
Deny Credit - Approve Prepay
Deny Application
Deny Application - Offline
Document: Done
620

Fig.8E.

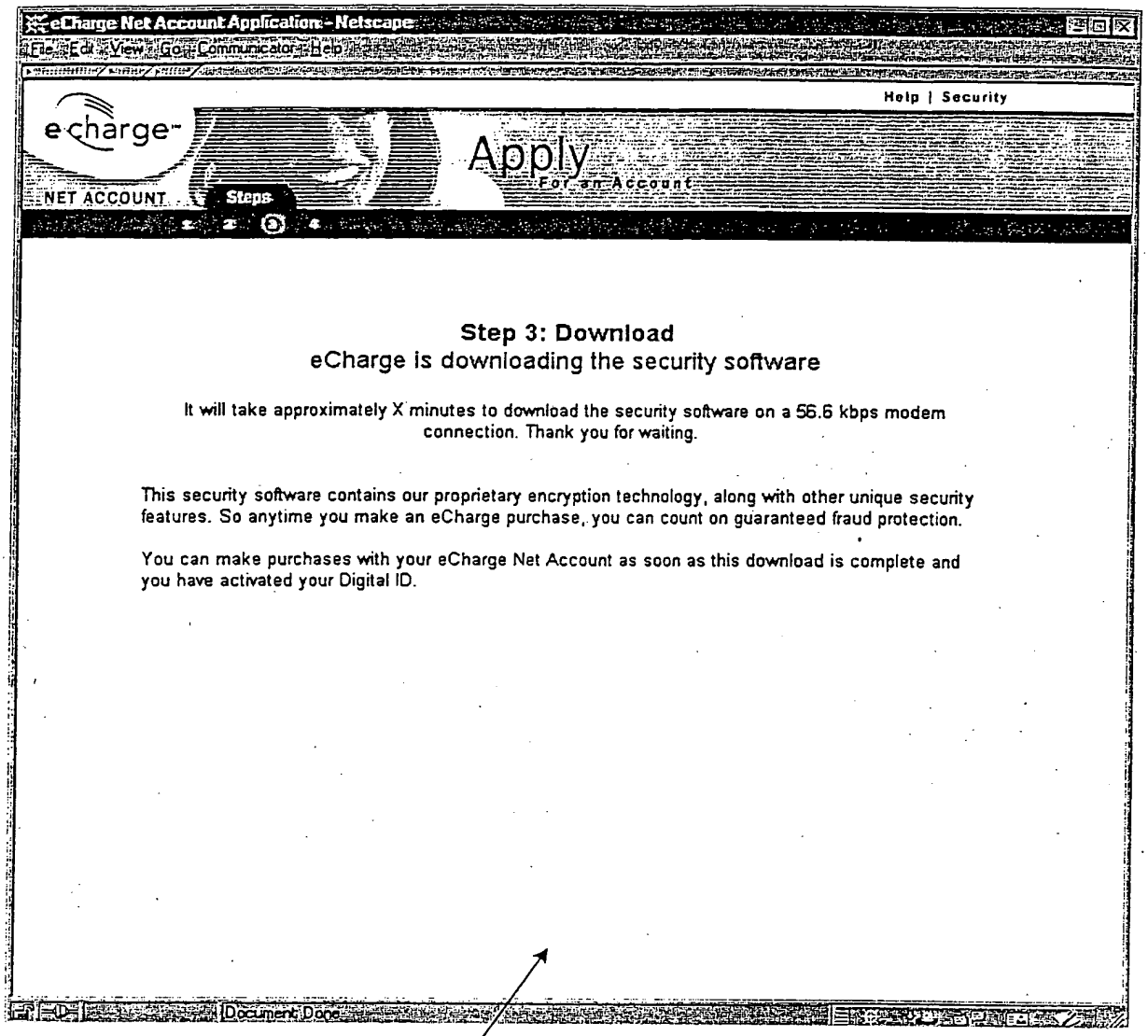
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
e-charge
Apply
For an Account
NET ACCOUNT
Steps
Step 3: Download
eCharge is downloading the security software
It will take approximately X minutes to download the security software on a 56.6 kbps modem connection. Thank you for waiting.
This security software contains our proprietary encryption technology, along with other unique security features. So anytime you make an eCharge purchase, you can count on guaranteed fraud protection.
You can make purchases with your eCharge Net Account as soon as this download is complete and you have activated your Digital ID.
Document Done
625

Fig. 8F.

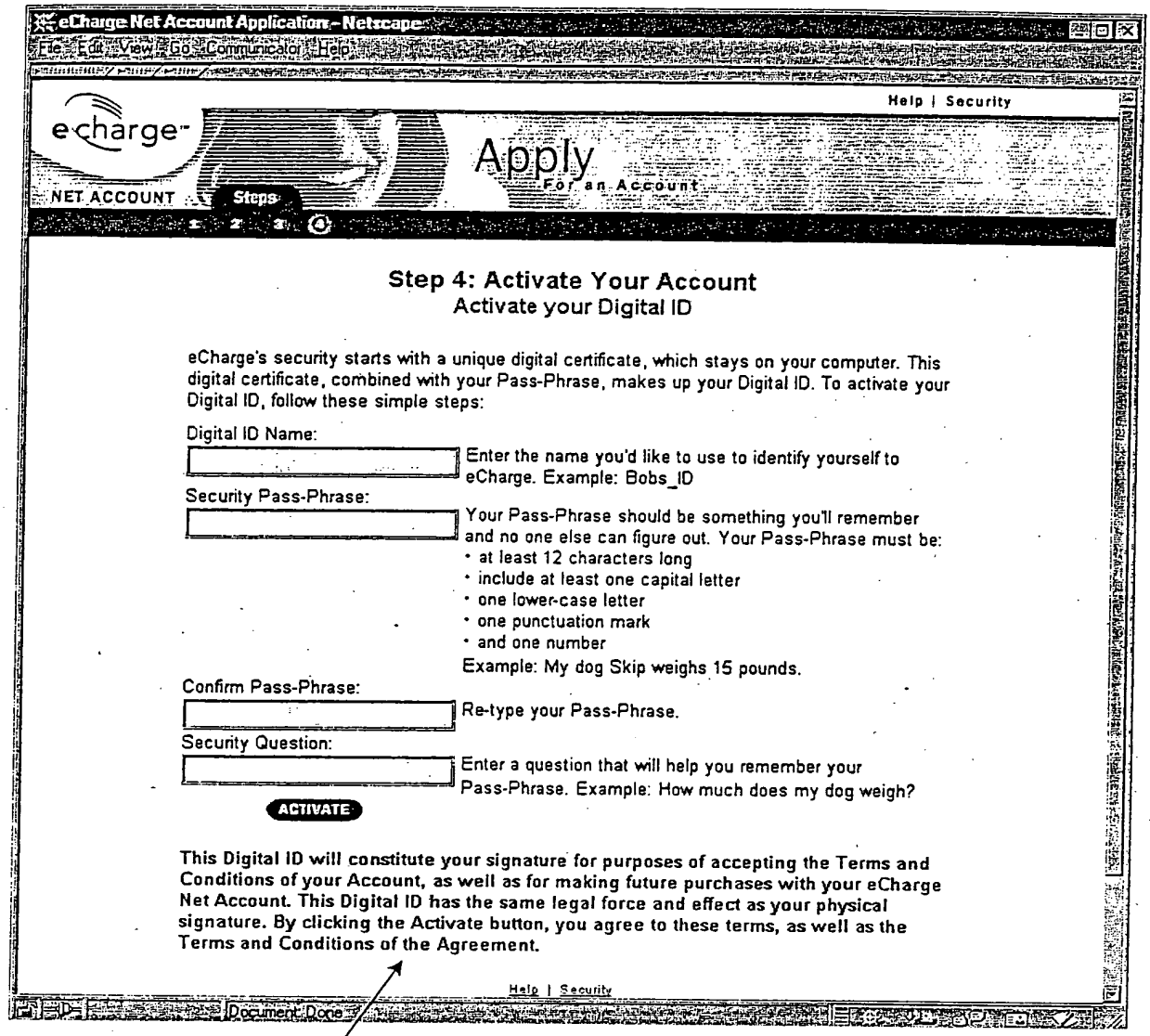
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Help | Security
echarge
NET ACCOUNT
Steps
Apply
For an Account
1 2 3
Step 4: Activate Your Account
Activate your Digital ID
eCharge's security starts with a unique digital certificate, which stays on your computer. This digital certificate, combined with your Pass-Phrase, makes up your Digital ID. To activate your Digital ID, follow these simple steps:
Digital ID Name:
Enter the name you'd like to use to identify yourself to eCharge. Example: Bobs_ID
Security Pass-Phrase:
Your Pass-Phrase should be something you'll remember and no one else can figure out. Your Pass-Phrase must be:
• at least 12 characters long
• include at least one capital letter
• one lower-case letter
• one punctuation mark
• and one number
Example: My dog Skip weighs 15 pounds.
Confirm Pass-Phrase:
Re-type your Pass-Phrase.
Security Question:
Enter a question that will help you remember your Pass-Phrase. Example: How much does my dog weigh?
ACTIVATE
This Digital ID will constitute your signature for purposes of accepting the Terms and Conditions of your Account, as well as for making future purchases with your eCharge Net Account. This Digital ID has the same legal force and effect as your physical signature. By clicking the Activate button, you agree to these terms, as well as the Terms and Conditions of the Agreement.
Help | Security
Document Done
630

Fig.8G.

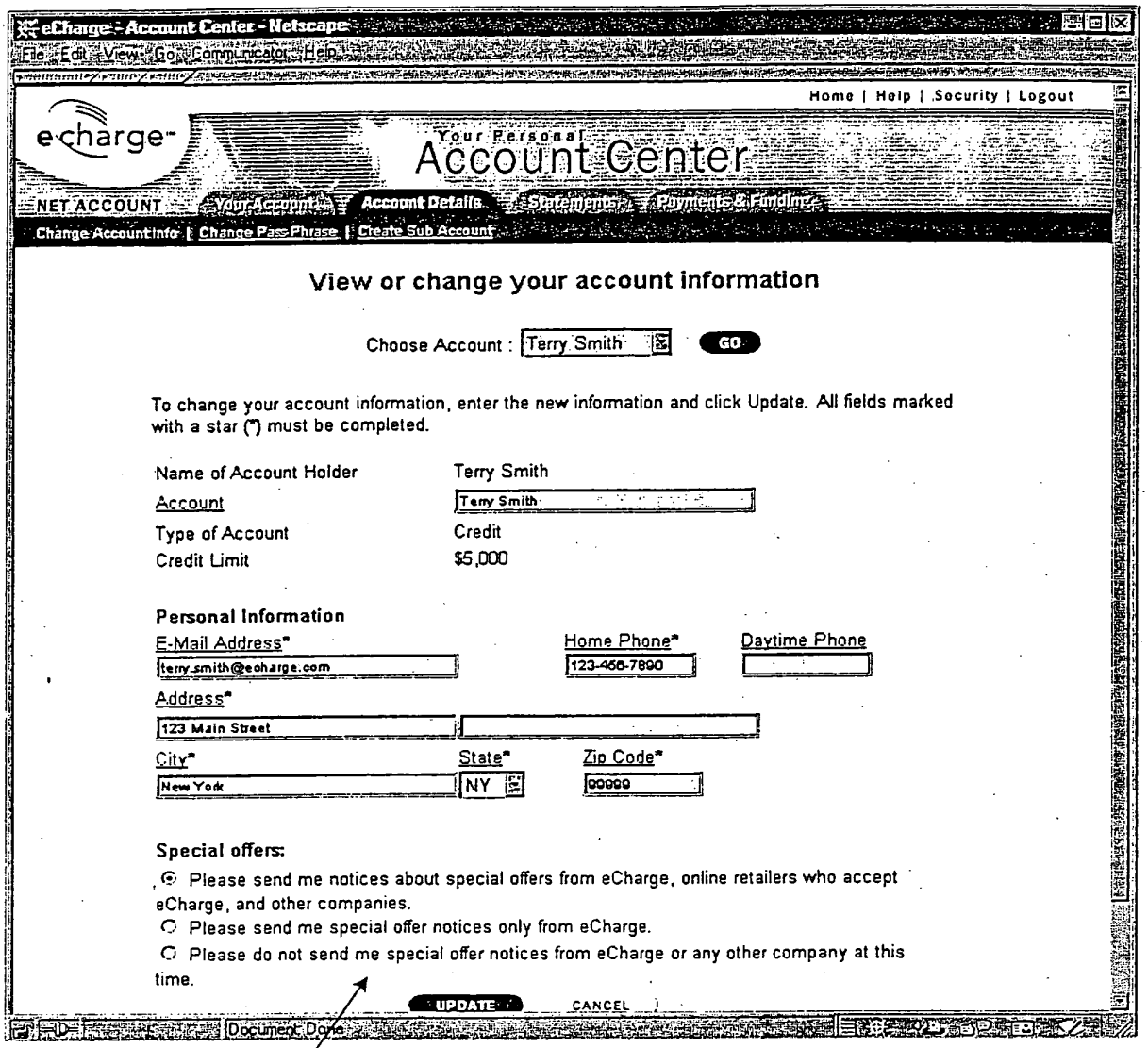
eCharge - Account Center - Netscape
File Edit View Go Communicator Help
Home | Help | Security | Logout
e-charge
Your Personal
Account Center
NET ACCOUNT
Your Account
Account Details
Statements
Payments & Funding
Change Account Info | Change Pass Phrase | Create Sub Account
View or change your account information
Choose Account : Terry Smith
GO
To change your account information, enter the new information and click Update. All fields marked with a star (*) must be completed.
Name of Account Holder
Terry Smith
Account
Terry Smith
Type of Account
Credit
Credit Limit
$5,000
Personal Information
E-Mail Address*
terry.smith@echarge.com
Home Phone*
123-456-7890
Daytime Phone
Address*
123 Main Street
City*
New York
State*
NY
Zip Code*
00000
Special offers:
Please send me notices about special offers from eCharge, online retailers who accept eCharge, and other companies.
Please send me special offer notices only from eCharge.
Please do not send me special offer notices from eCharge or any other company at this time.
UPDATE
CANCEL
Document Done
640

Fig.9A.

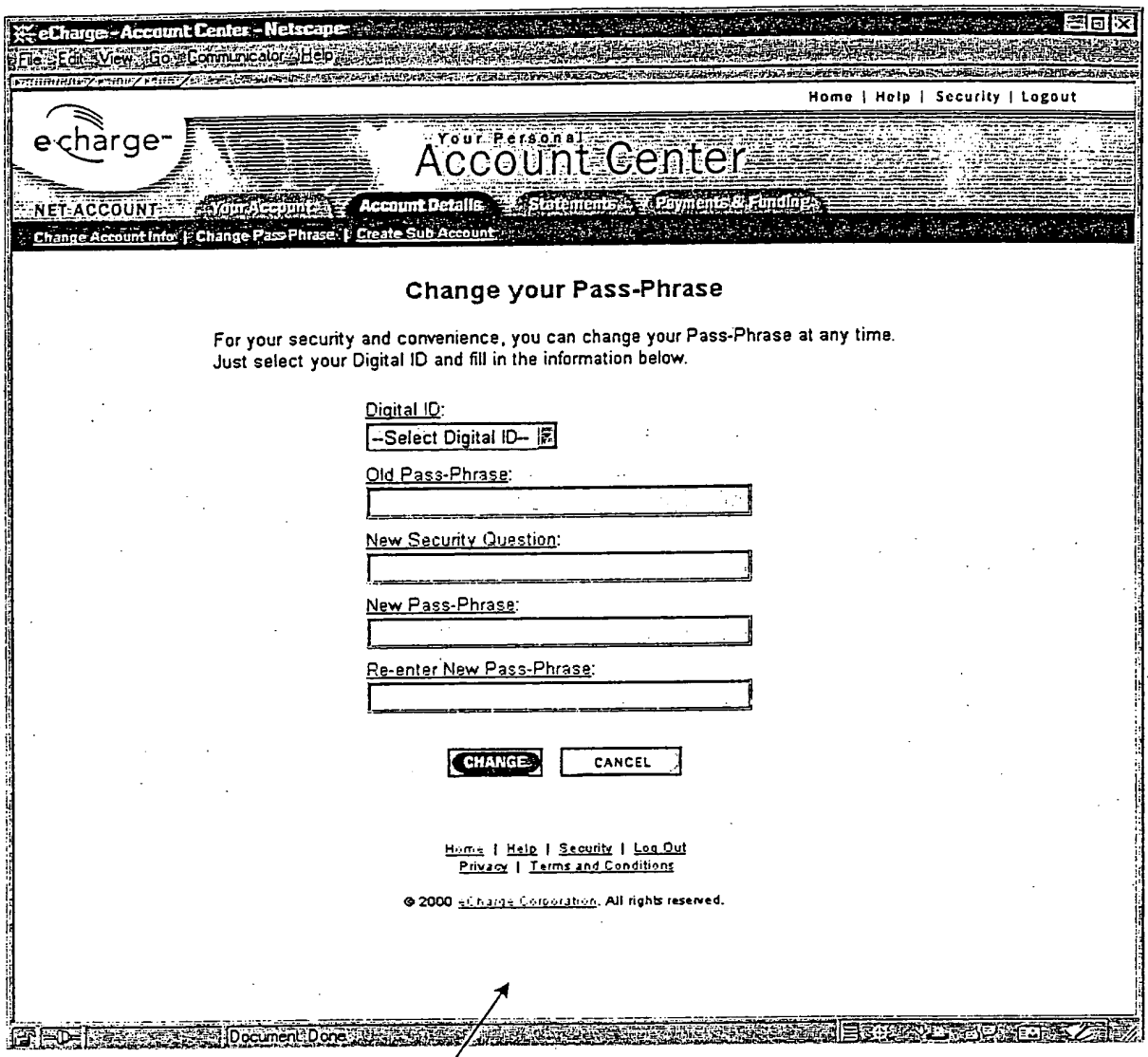
eCharge - Account Center - Netscape
File Edit View Go Communicator Help
Home | Help | Security | Logout
e-charge
Your Personal
Account Center
NET ACCOUNT
Your Account
Account Details
Statements
Payments & Funding
Change Account Infor
Change Pass Phrase
Create Sub Account
Change your Pass-Phrase
For your security and convenience, you can change your Pass-Phrase at any time.
Just select your Digital ID and fill in the information below.
Digital ID:
--Select Digital ID--
Old Pass-Phrase:
New Security Question:
New Pass-Phrase:
Re-enter New Pass-Phrase:
CHANGE
CANCEL
Home | Help | Security | Log Out
Privacy | Terms and Conditions
© 2000 eCharge Corporation. All rights reserved.
Document Done
645

Fig.9B.

Title: METHOD AND APPARATUS FOR ORDERING GOODS, SERVICES AND CONTENT OVER AN INTERNETWORK USING A VIRTUAL PAYMENT ACCOUNT
Inventors: Robin B. Hutchison et al.
Docket No.: ECHG121699

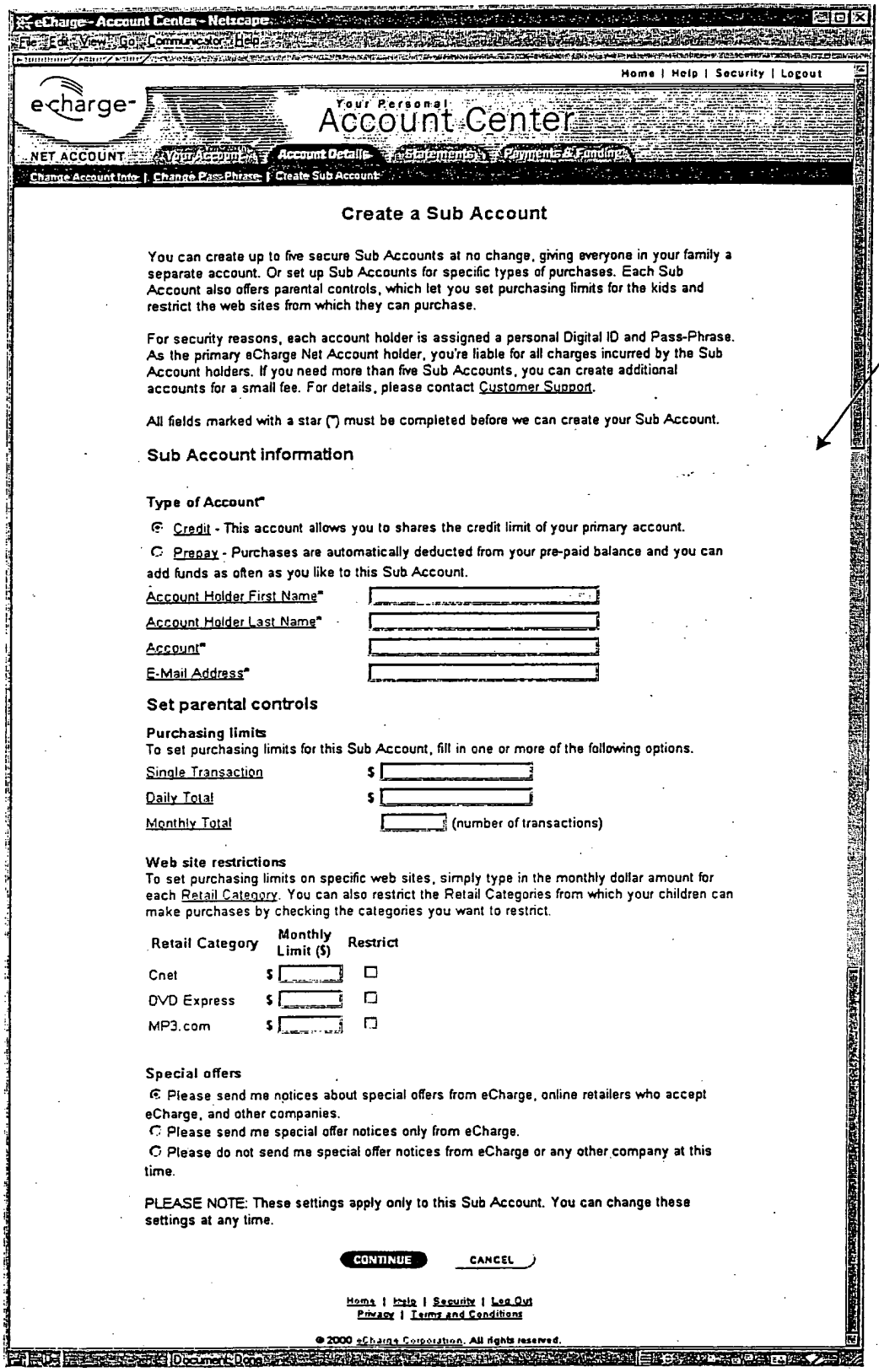

Fig.9C.

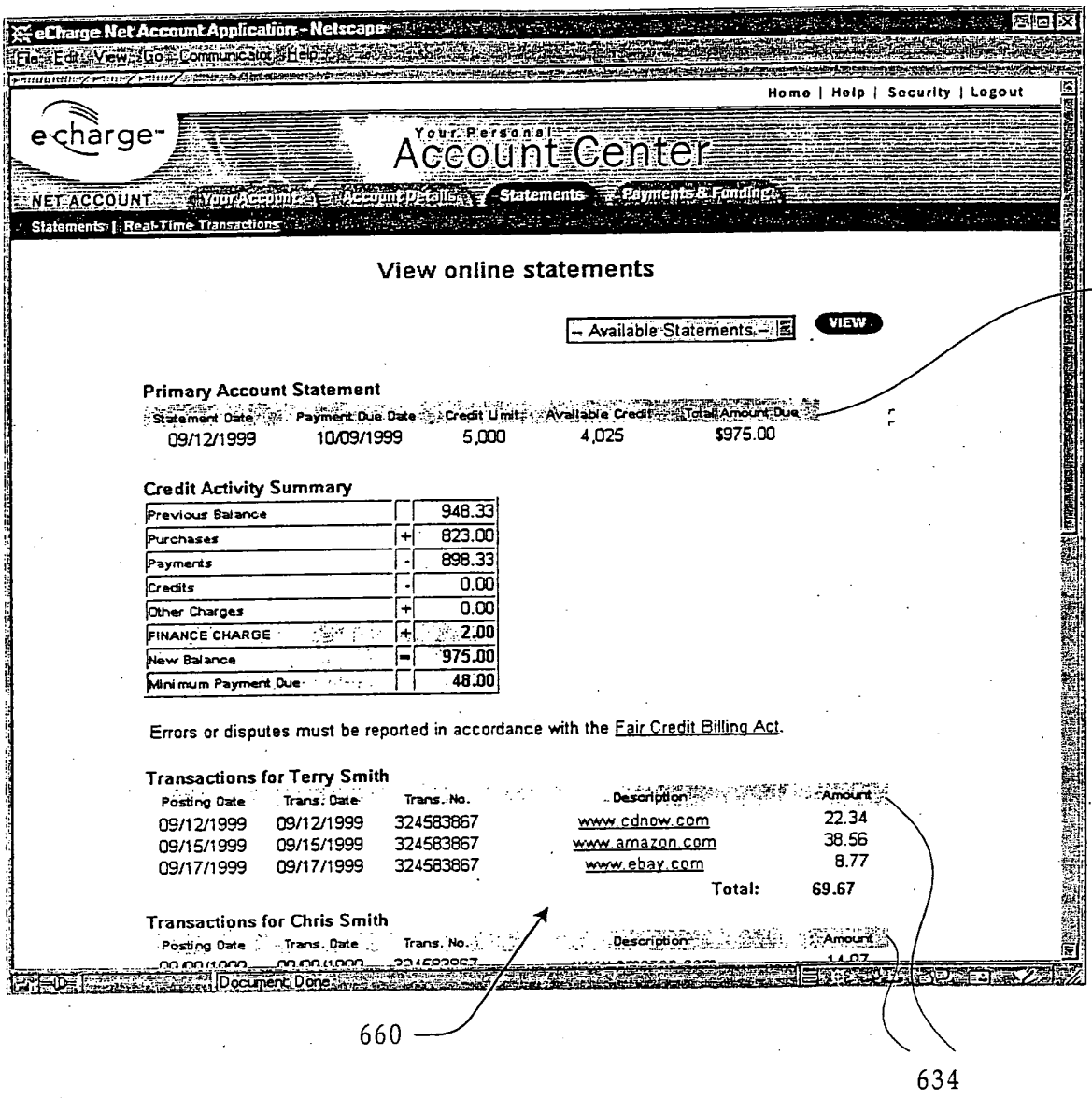
eCharge Net Account Application - Netscape
File Edit View Go Communicator Help
Home | Help | Security | Logout
e-charge
Your Personal
Account Center
NET ACCOUNT
Your Accounts
Account Details
Statements
Payments & Funding
Statements | Real-Time Transactions
View online statements
632
-- Available Statements --
VIEW
Primary Account Statement
Statement Date | Payment Due Date | Credit Limit | Available Credit | Total Amount Due
09/12/1999 | 10/09/1999 | 5,000 | 4,025 | $975.00
Credit Activity Summary
Previous Balance 948.33
Purchases + 823.00
Payments - 898.33
Credits - 0.00
Other Charges + 0.00
FINANCE CHARGE + 2.00
New Balance = 975.00
Minimum Payment Due 48.00
Errors or disputes must be reported in accordance with the Fair Credit Billing Act.
Transactions for Terry Smith
Posting Date | Trans. Date | Trans. No. | Description | Amount
09/12/1999 | 09/12/1999 | 324583867 | www.cdnow.com | 22.34
09/15/1999 | 09/15/1999 | 324583867 | www.amazon.com | 38.56
09/17/1999 | 09/17/1999 | 324583867 | www.ebay.com | 8.77
Total: 69.67
Transactions for Chris Smith
Posting Date | Trans. Date | Trans. No. | Description | Amount
Document Done
660
634

Fig.10A.

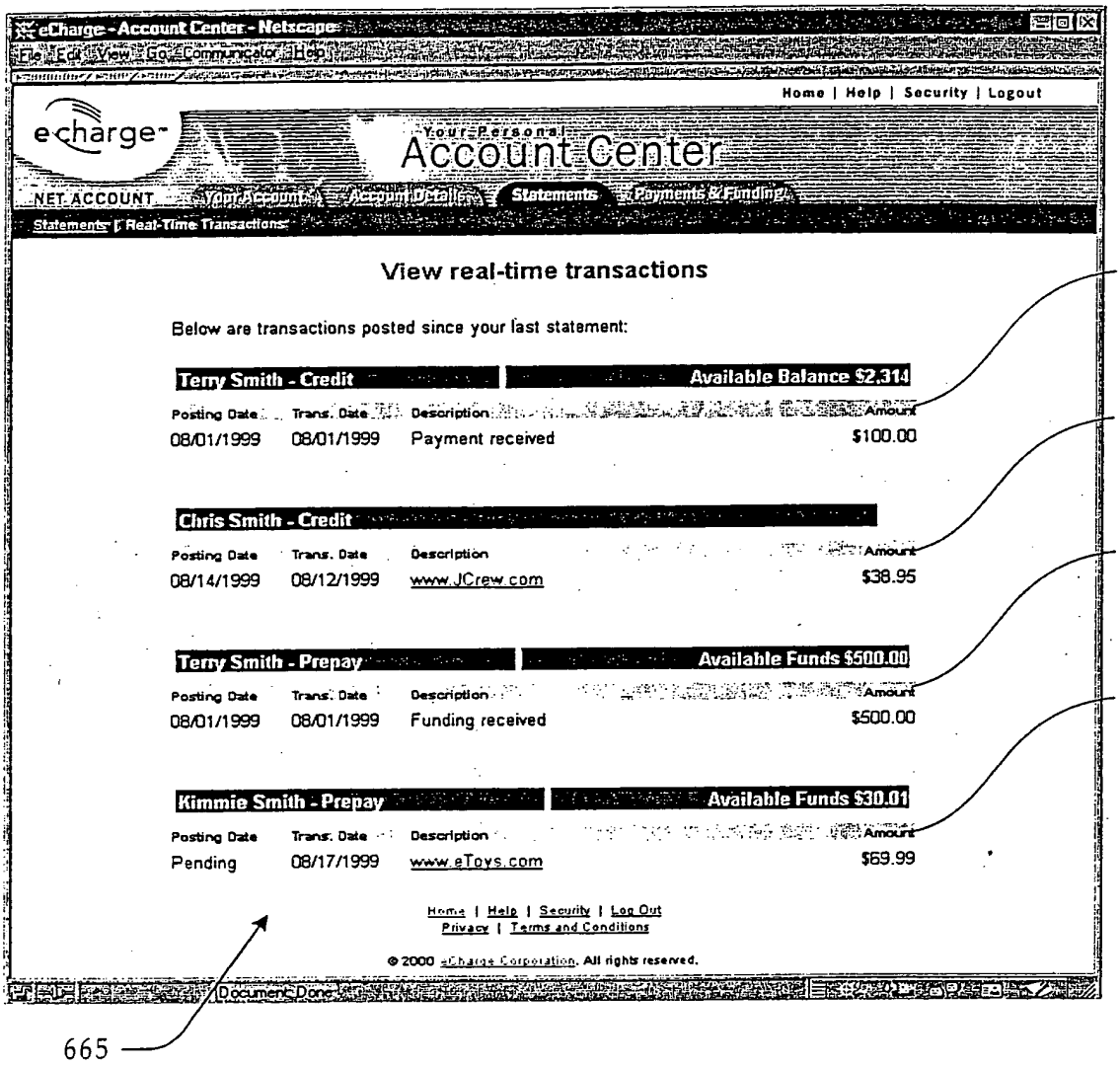
eCharge - Account Center - Netscape
File Edit View Go Communicator Help
Home | Help | Security | Logout
echarge
Your Personal
Account Center
NET ACCOUNT
Your Account
Account Details
Statements
Payments & Funding
Statements | Real-Time Transactions
View real-time transactions
Below are transactions posted since your last statement:
Terry Smith - Credit
Available Balance $2,314
Posting Date
Trans. Date
Description
Amount
08/01/1999
08/01/1999
Payment received
$100.00
Chris Smith - Credit
Posting Date
Trans. Date
Description
Amount
08/14/1999
08/12/1999
www.JCrew.com
$38.95
Terry Smith - Prepay
Available Funds $500.00
Posting Date
Trans. Date
Description
Amount
08/01/1999
08/01/1999
Funding received
$500.00
Kimmie Smith - Prepay
Available Funds $30.01
Posting Date
Trans. Date
Description
Amount
Pending
08/17/1999
www.eToys.com
$69.99
Home | Help | Security | Log Out
Privacy | Terms and Conditions
© 2000 eCharge Corporation. All rights reserved.
Document Done
634
634
634
634
665

Fig.10B.

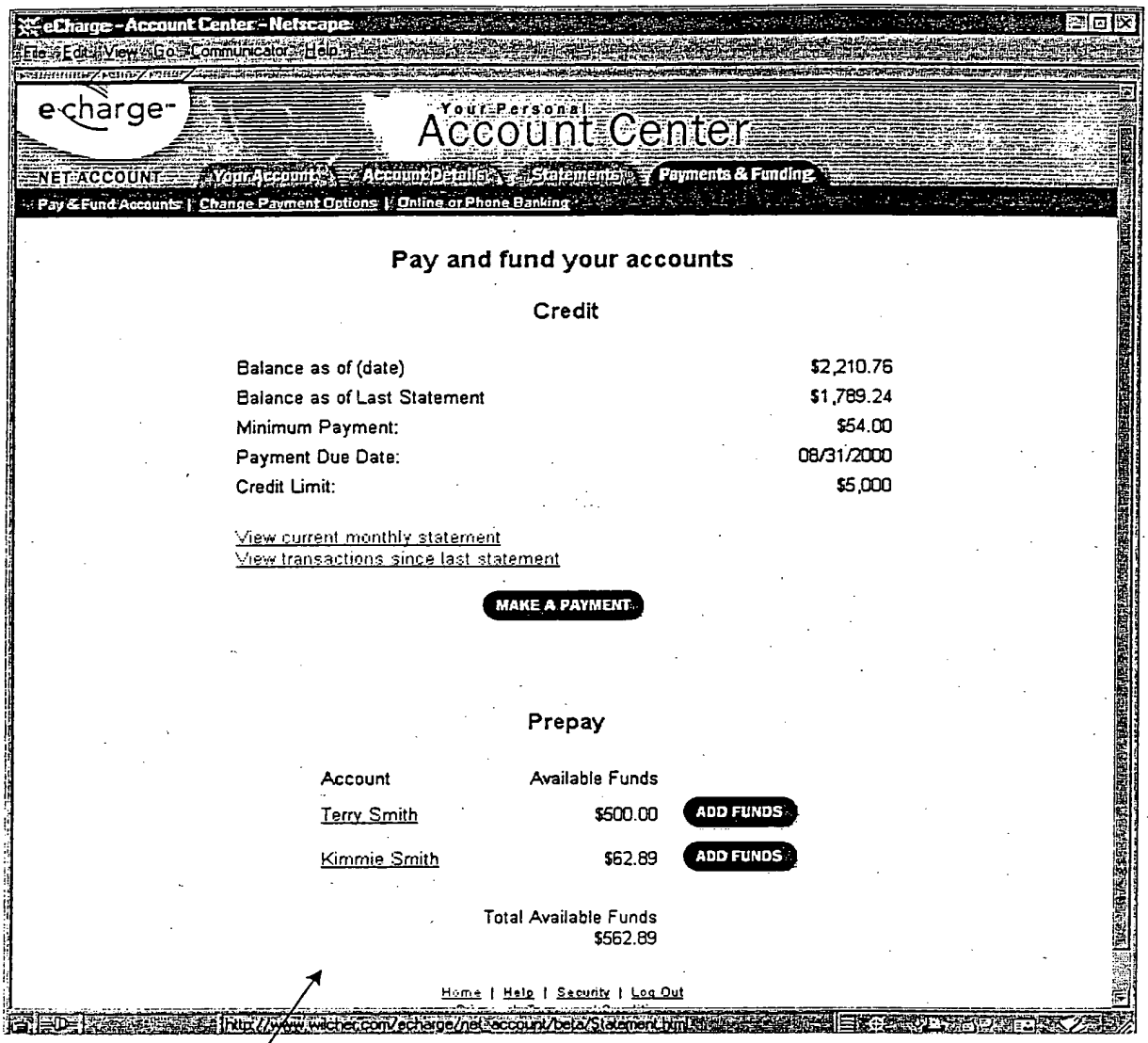
eCharge - Account Center - Netscape
File Edit View Go Communicator Help
e-charge
Your Personal
Account Center
NET ACCOUNT
Your Accounts
Account Details
Statements
Payments & Funding
Pay & Fund Accounts | Change Payment Options | Online or Phone Banking
Pay and fund your accounts
Credit
Balance as of (date) $2,210.76
Balance as of Last Statement $1,789.24
Minimum Payment: $54.00
Payment Due Date: 08/31/2000
Credit Limit: $5,000
View current monthly statement
View transactions since last statement
MAKE A PAYMENT
Prepay
Account
Available Funds
Terry Smith $500.00 ADD FUNDS
Kimmie Smith $62.89 ADD FUNDS
Total Available Funds
$562.89
Home | Help | Security | Log Out
http://www.wichet.com/echarge/net_account/beta/Statement.html
670

Fig.10C.

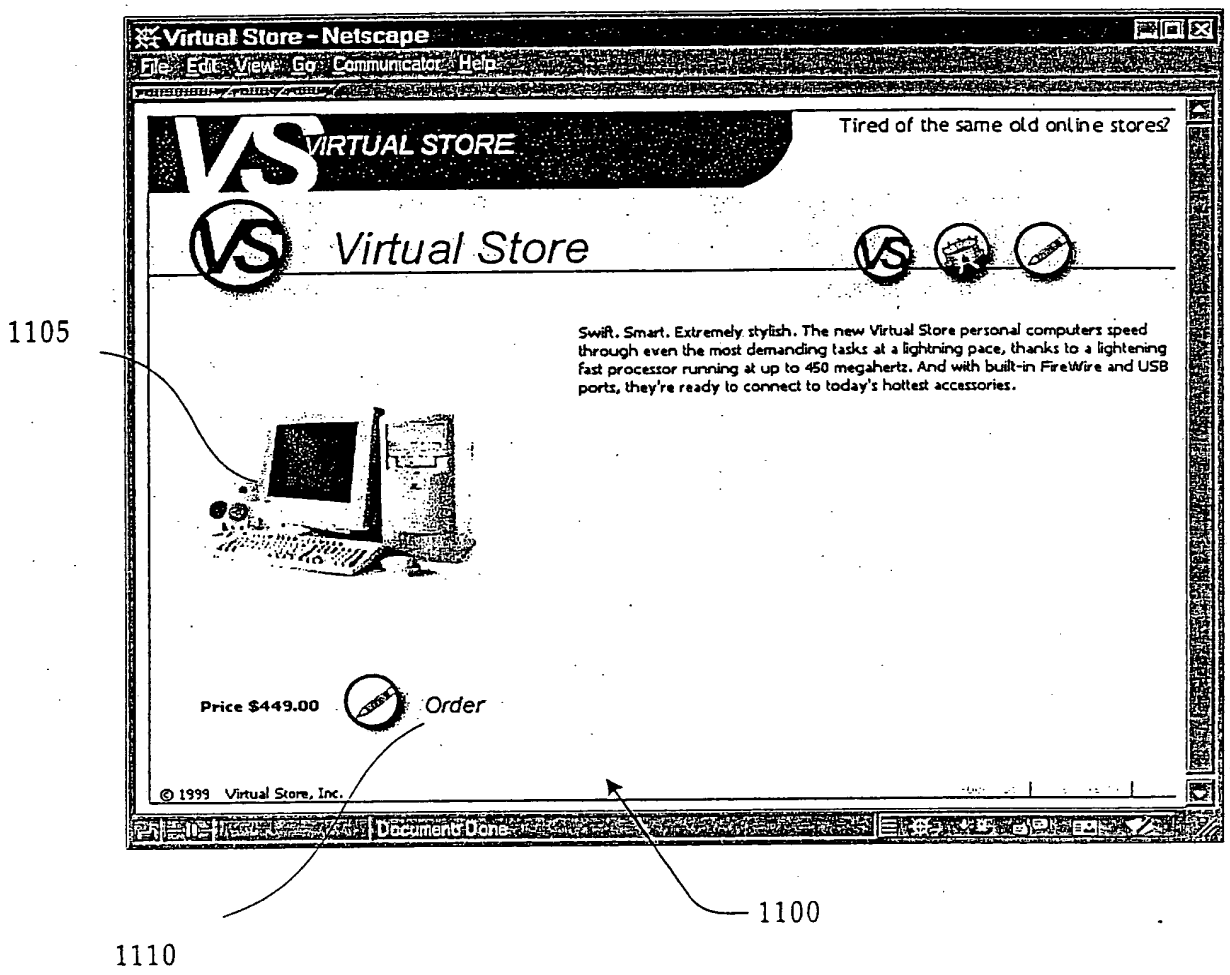
Virtual Store - Netscape
File Edit View Go Communicator Help
VIRTUAL STORE
Tired of the same old online stores?
Virtual Store
Swift. Smart. Extremely stylish. The new Virtual Store personal computers speed through even the most demanding tasks at a lightning pace, thanks to a lightening fast processor running at up to 450 megahertz. And with built-in FireWire and USB ports, they're ready to connect to today's hottest accessories.
Price $449.00
Order
© 1999 Virtual Store, Inc.
Document Done
1105
1100
1110

Fig.11A.

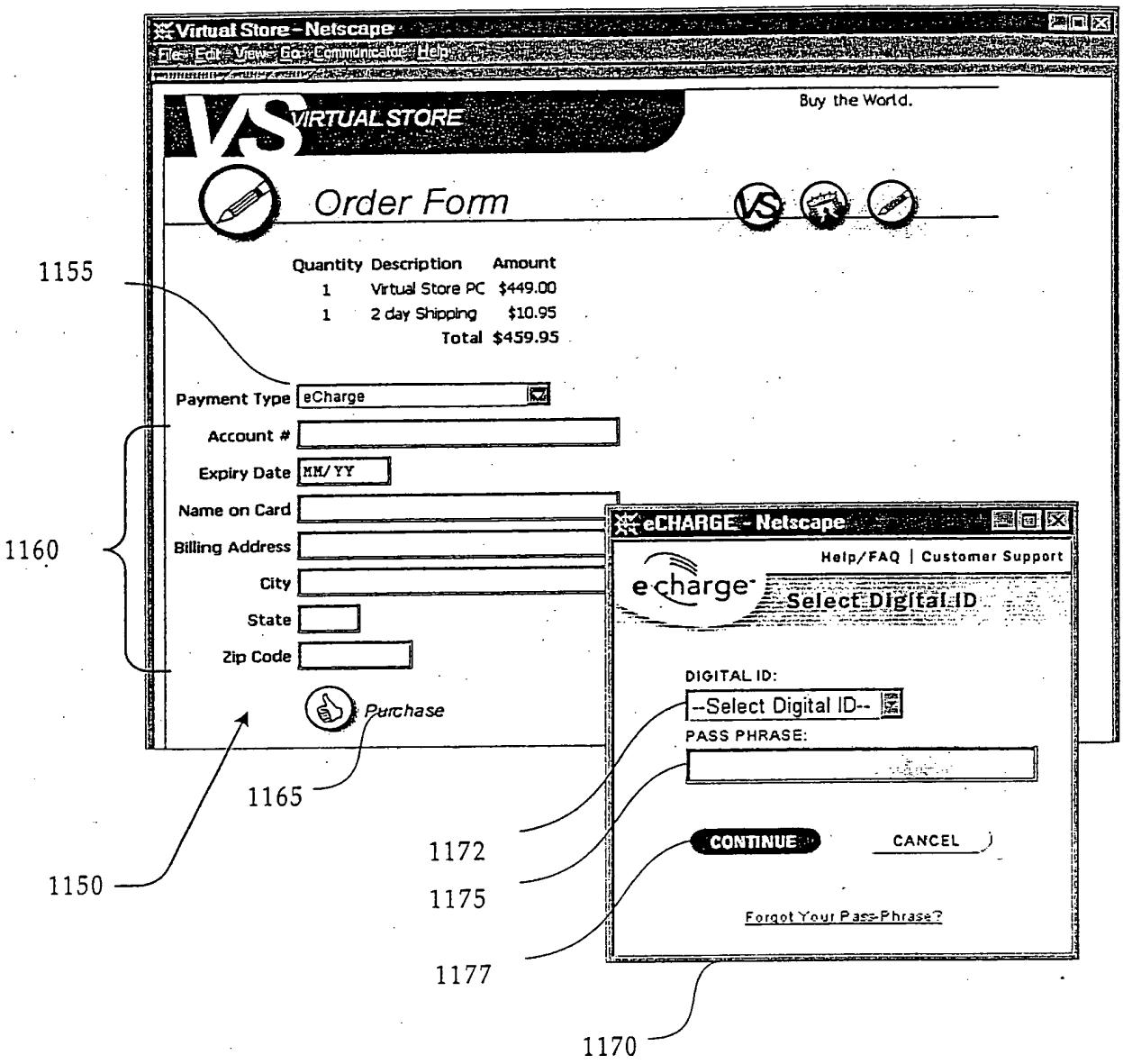
Virtual Store - Netscape
VIRTUAL STORE
Buy the World.
Order Form
Quantity Description Amount
1 Virtual Store PC $449.00
1 2 day Shipping $10.95
Total $459.95
Payment Type eCharge
Account #
Expiry Date MM/YY
Name on Card
Billing Address
City
State
Zip Code
Purchase
eCHARGE - Netscape
Help/FAQ | Customer Support
e-charge
Select Digital ID
DIGITAL ID:
--Select Digital ID--
PASS PHRASE:
CONTINUE
CANCEL
Forgot Your Pass-Phrase?
1155
1160
1150
1165
1172
1175
1177
1170

Fig.11B.

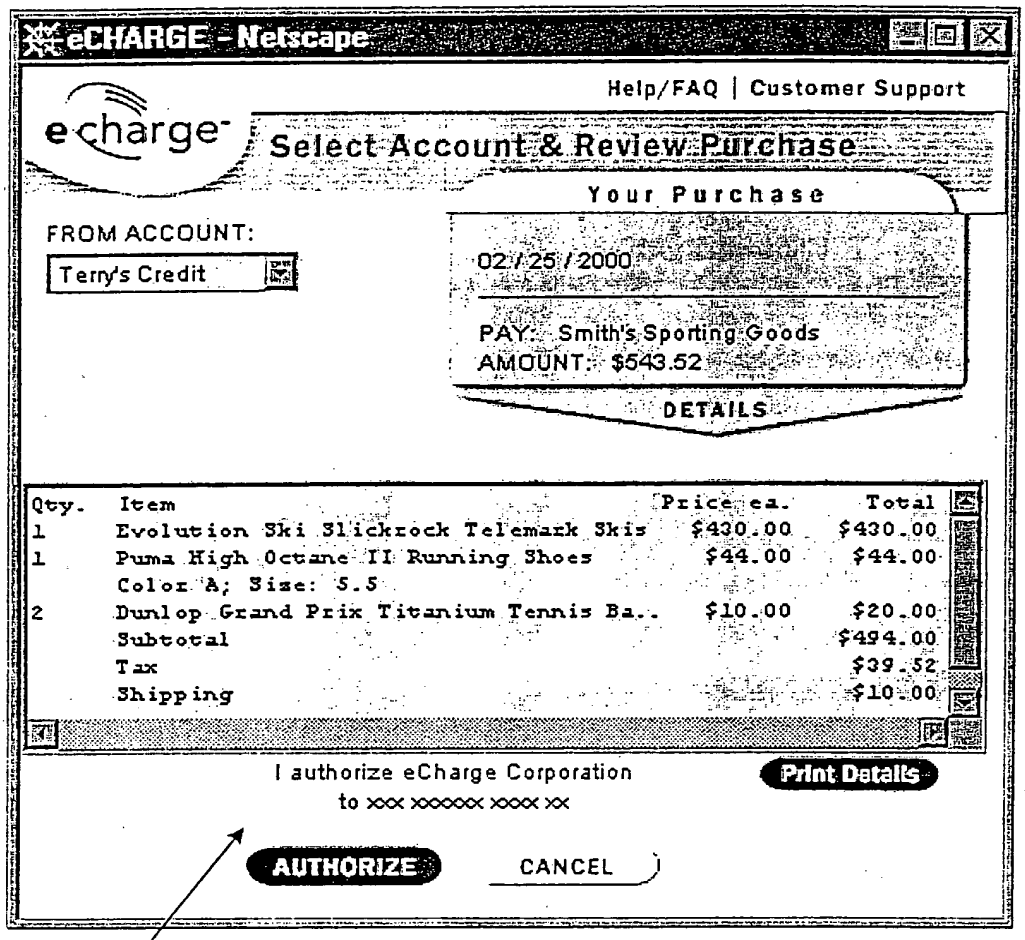
eCHARGE - Netscape
Help/FAQ | Customer Support
echarge
Select Account & Review Purchase
Your Purchase
FROM ACCOUNT:
Terry's Credit
02/25/2000
PAY: Smith's Sporting Goods
AMOUNT: $543.52
DETAILS
Qty. Item Price ea. Total
1 Evolution Ski Slickrock Telemark Skis $430.00 $430.00
1 Puma High Octane II Running Shoes $44.00 $44.00
Color A; Size: 5.5
2 Dunlop Grand Prix Titanium Tennis Ba.. $10.00 $20.00
Subtotal $494.00
Tax $39.52
Shipping $10.00
I authorize eCharge Corporation
to xxx xxxxxx xxxx xx
Print Details
AUTHORIZE
CANCEL
1180

Fig.11C.

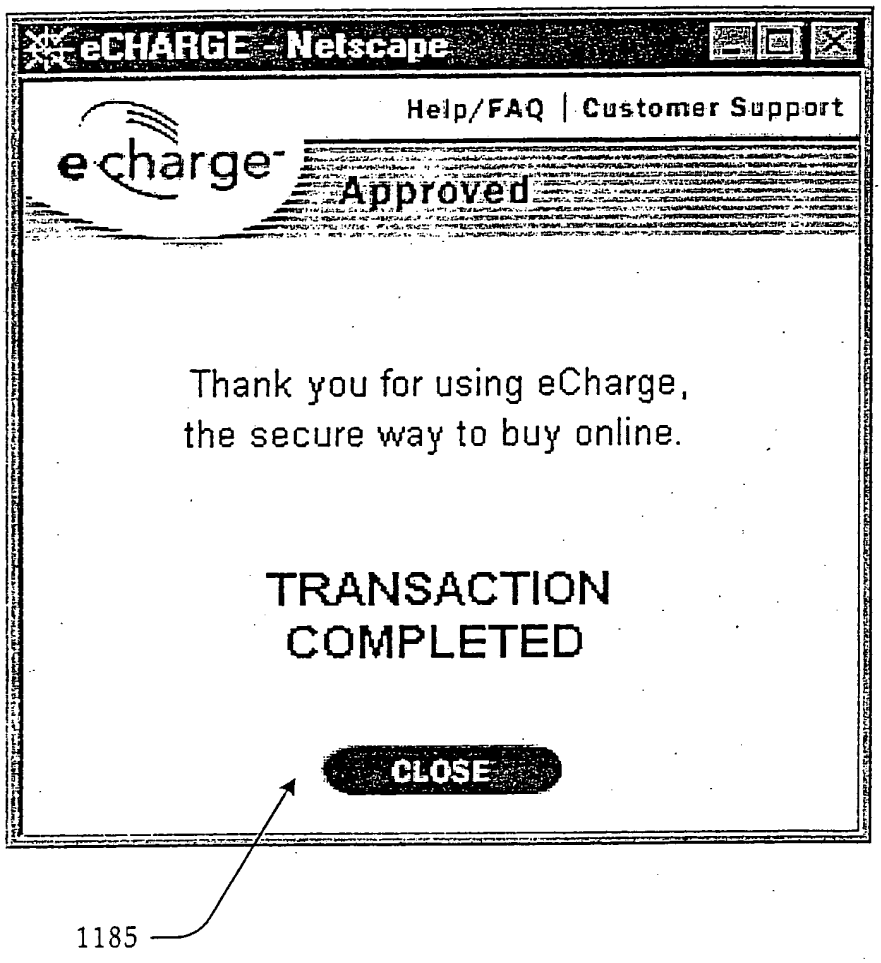
eCHARGE - Netscape
Help/FAQ | Customer Support
echarge
Approved
Thank you for using eCharge,
the secure way to buy online.
TRANSACTION
COMPLETED
CLOSE
1185

Fig.11D.

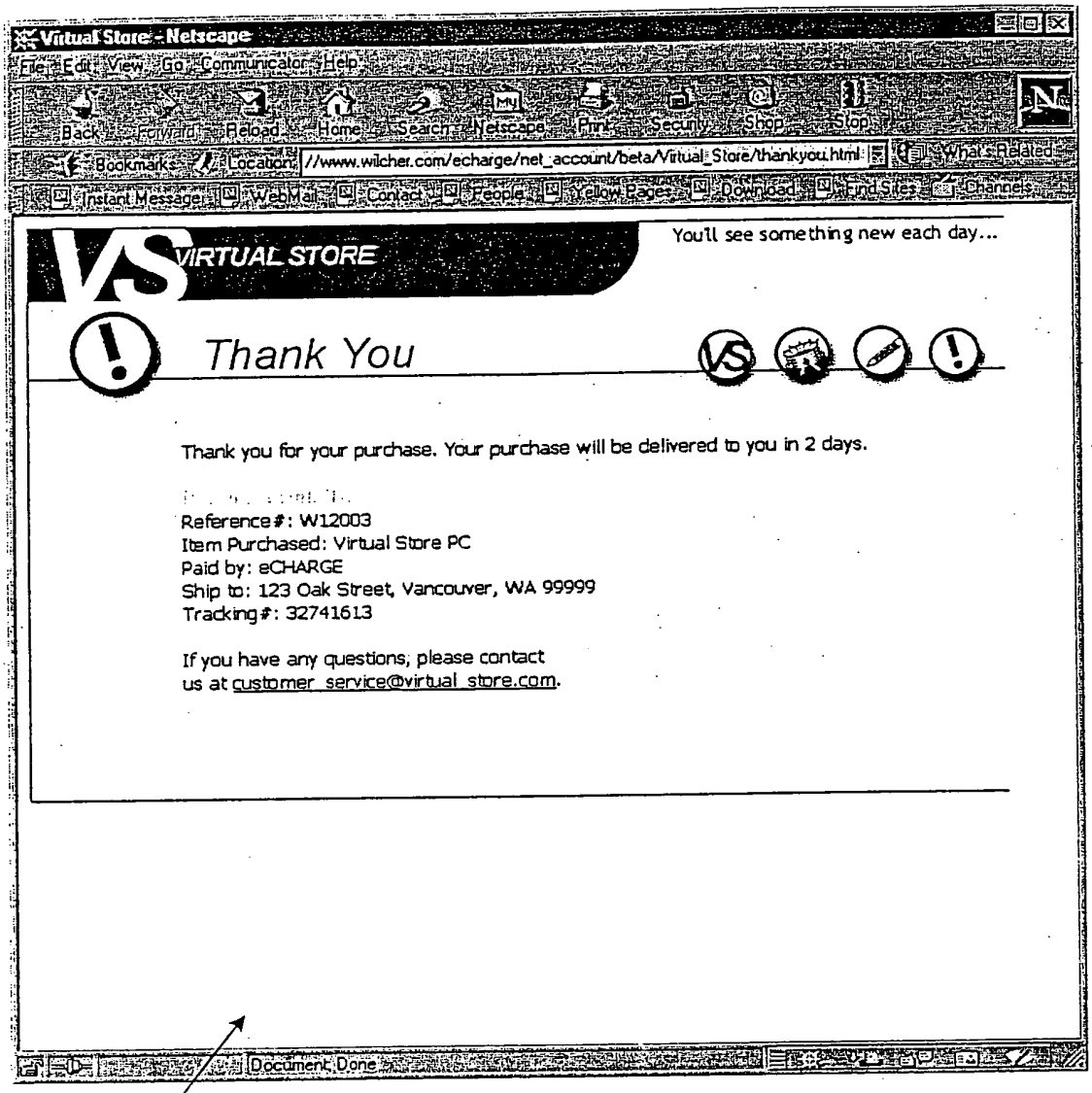
Virtual Store - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmark Location: //www.wilcher.com/echarge/net_account/beta/Virtual_Store/thankyou.html
What's Related
Instant Message WebMail Contact People Yellow Pages Download Find Sites Channels
VS VIRTUAL STORE
You'll see something new each day...
Thank You
Thank you for your purchase. Your purchase will be delivered to you in 2 days.
Reference#: W12003
Item Purchased: Virtual Store PC
Paid by: eCHARGE
Ship to: 123 Oak Street, Vancouver, WA 99999
Tracking#: 32741613
If you have any questions, please contact us at customer_service@virtual_store.com.
Document: Done
1190

Fig.11E.

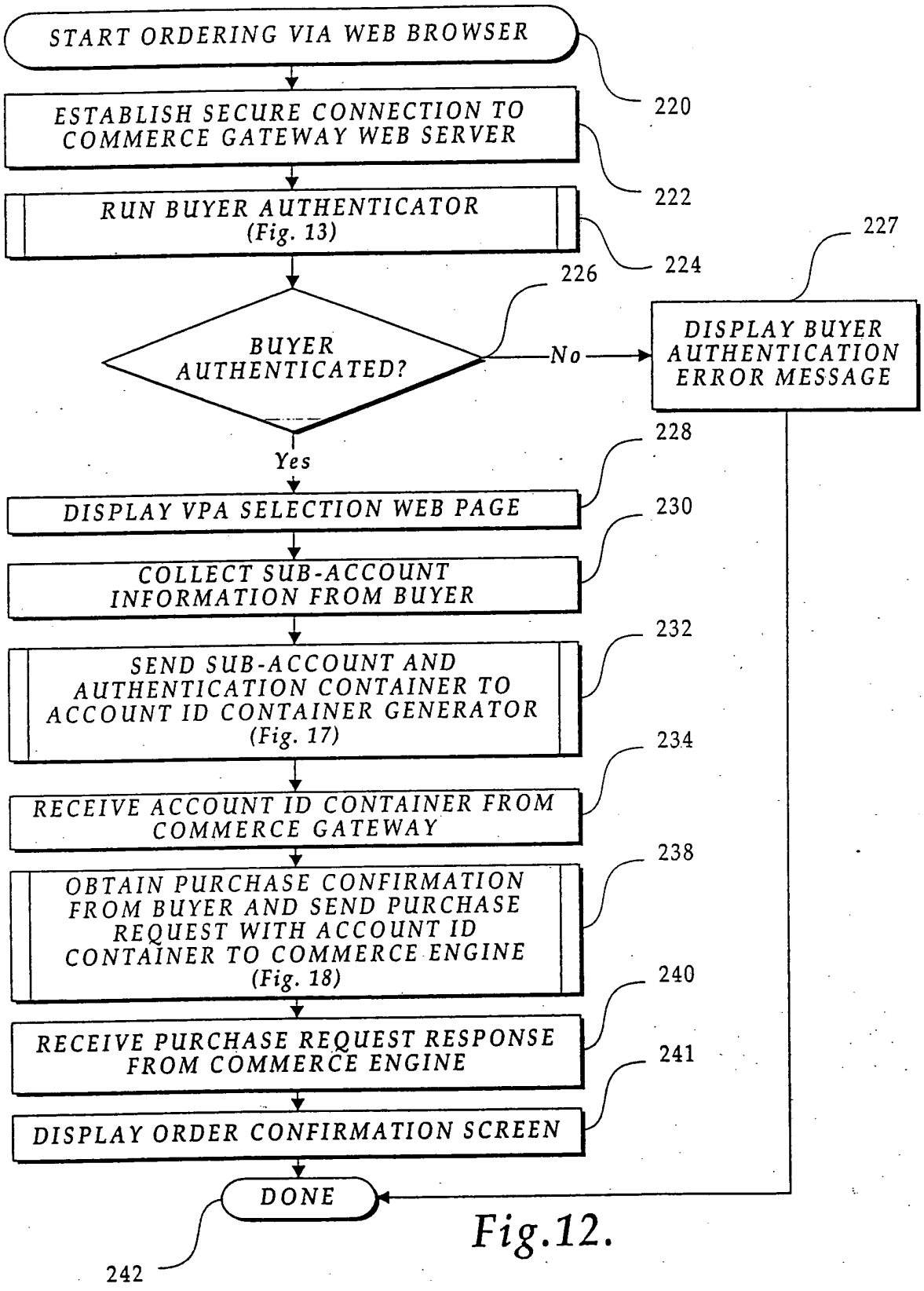
START ORDERING VIA WEB BROWSER
220
ESTABLISH SECURE CONNECTION TO COMMERCE GATEWAY WEB SERVER
222
RUN BUYER AUTHENTICATOR (Fig. 13)
224
227
226
BUYER AUTHENTICATED?
No
DISPLAY BUYER AUTHENTICATION ERROR MESSAGE
Yes
228
DISPLAY VPA SELECTION WEB PAGE
230
COLLECT SUB-ACCOUNT INFORMATION FROM BUYER
232
SEND SUB-ACCOUNT AND AUTHENTICATION CONTAINER TO ACCOUNT ID CONTAINER GENERATOR (Fig. 17)
234
RECEIVE ACCOUNT ID CONTAINER FROM COMMERCE GATEWAY
238
OBTAIN PURCHASE CONFIRMATION FROM BUYER AND SEND PURCHASE REQUEST WITH ACCOUNT ID CONTAINER TO COMMERCE ENGINE (Fig. 18)
240
RECEIVE PURCHASE REQUEST RESPONSE FROM COMMERCE ENGINE
241
DISPLAY ORDER CONFIRMATION SCREEN
DONE
242

Fig.12.

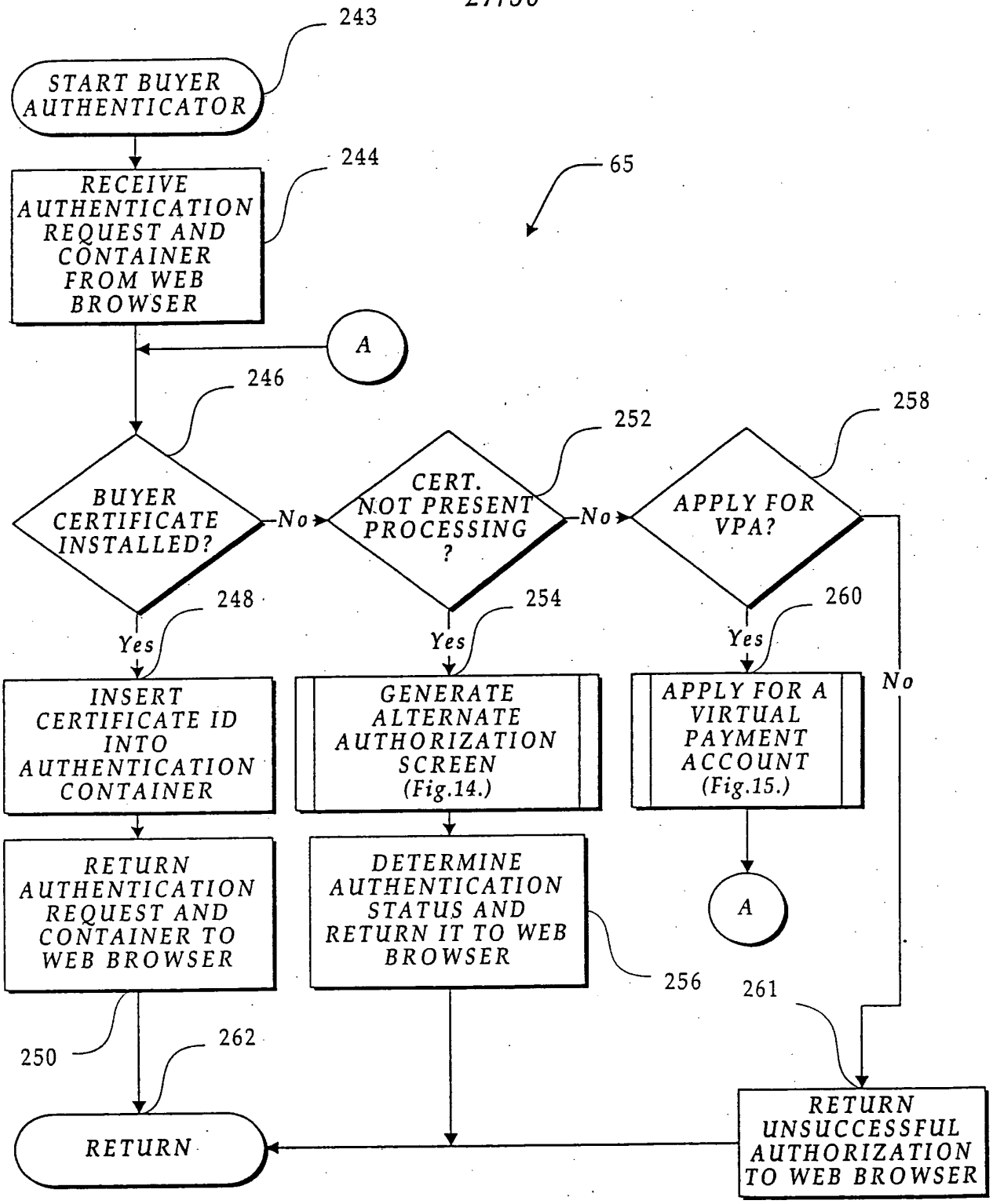
243
START BUYER AUTHENTICATOR
244
RECEIVE AUTHENTICATION REQUEST AND CONTAINER FROM WEB BROWSER
65
A
246
BUYER CERTIFICATE INSTALLED?
No
252
CERT. NOT PRESENT PROCESSING ?
No
258
APPLY FOR VPA?
No
Yes
248
INSERT CERTIFICATE ID INTO AUTHENTICATION CONTAINER
Yes
254
GENERATE ALTERNATE AUTHORIZATION SCREEN (Fig.14.)
Yes
260
APPLY FOR A VIRTUAL PAYMENT ACCOUNT (Fig.15.)
RETURN AUTHENTICATION REQUEST AND CONTAINER TO WEB BROWSER
DETERMINE AUTHENTICATION STATUS AND RETURN IT TO WEB BROWSER
256
A
261
250
262
RETURN
RETURN UNSUCCESSFUL AUTHORIZATION TO WEB BROWSER

Fig.13.

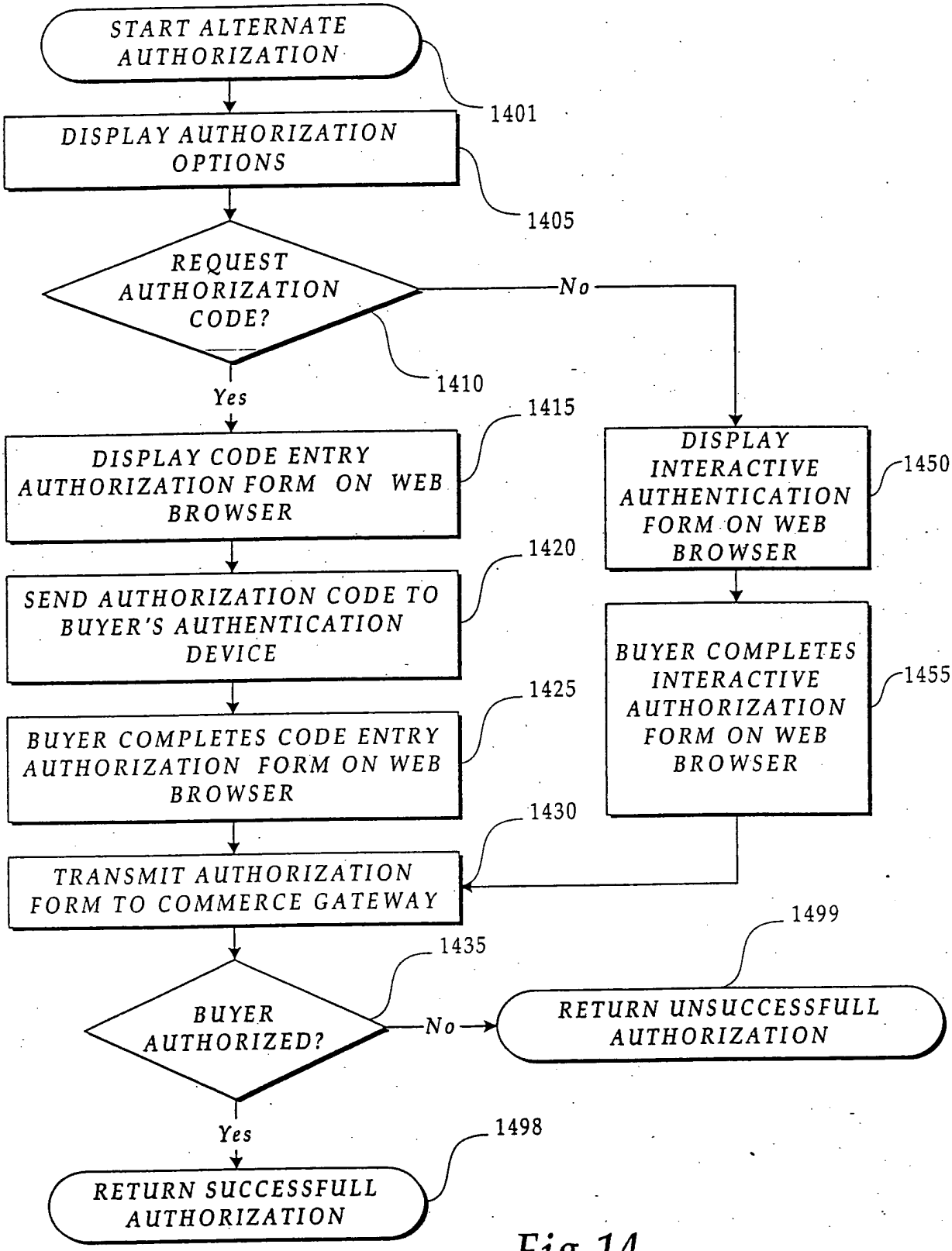
START ALTERNATE AUTHORIZATION
1401
DISPLAY AUTHORIZATION OPTIONS
1405
REQUEST AUTHORIZATION CODE?
1410
No
Yes
DISPLAY CODE ENTRY AUTHORIZATION FORM ON WEB BROWSER
1415
SEND AUTHORIZATION CODE TO BUYER'S AUTHENTICATION DEVICE
1420
BUYER COMPLETES CODE ENTRY AUTHORIZATION FORM ON WEB BROWSER
1425
TRANSMIT AUTHORIZATION FORM TO COMMERCE GATEWAY
1430
DISPLAY INTERACTIVE AUTHENTICATION FORM ON WEB BROWSER
1450
BUYER COMPLETES INTERACTIVE AUTHORIZATION FORM ON WEB BROWSER
1455
BUYER AUTHORIZED?
1435
No
RETURN UNSUCCESSFULL AUTHORIZATION
1499
Yes
RETURN SUCCESSFULL AUTHORIZATION
1498

Fig.14.

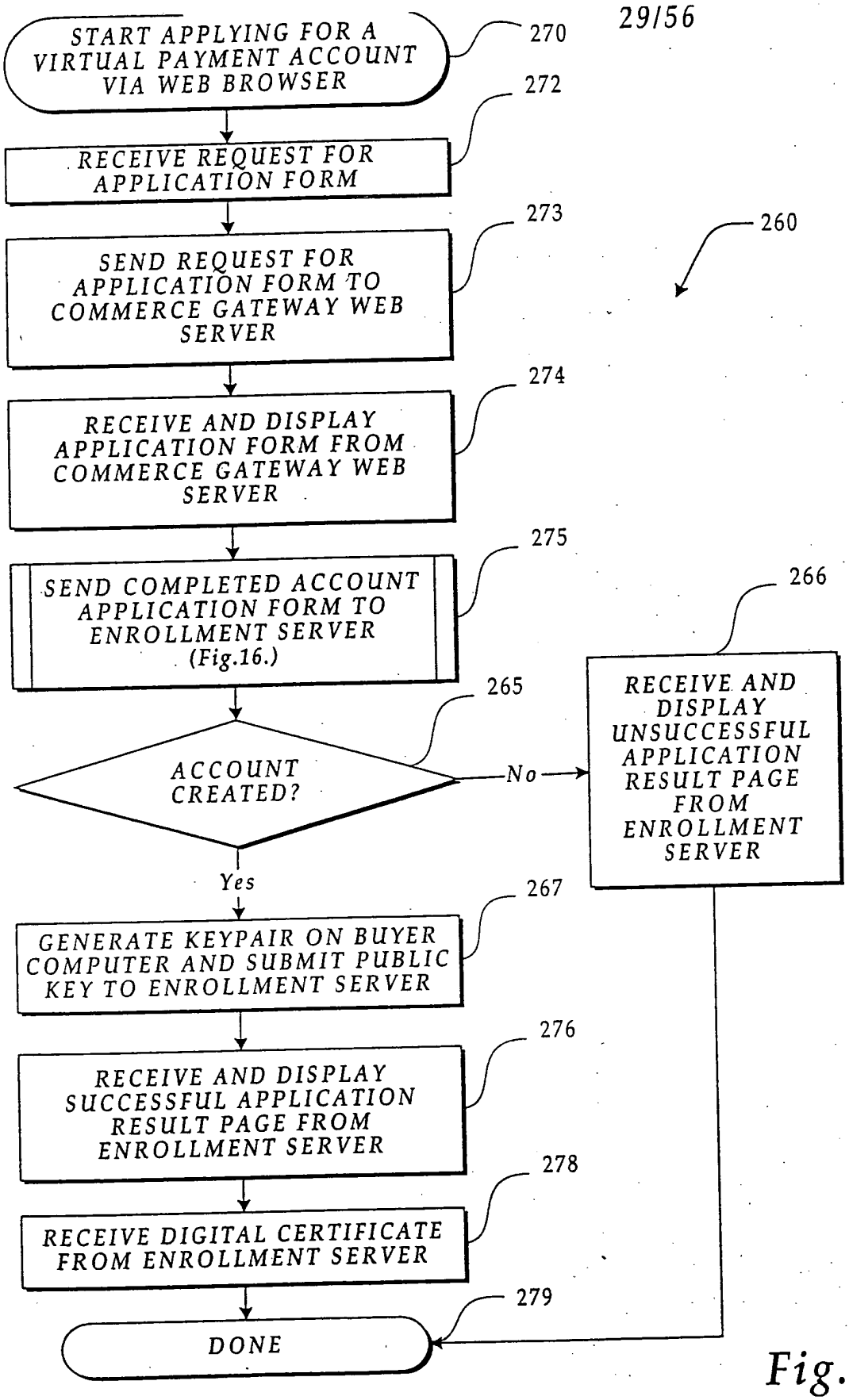
START APPLYING FOR A VIRTUAL PAYMENT ACCOUNT VIA WEB BROWSER
270
RECEIVE REQUEST FOR APPLICATION FORM
272
SEND REQUEST FOR APPLICATION FORM TO COMMERCE GATEWAY WEB SERVER
273
260
RECEIVE AND DISPLAY APPLICATION FORM FROM COMMERCE GATEWAY WEB SERVER
274
SEND COMPLETED ACCOUNT APPLICATION FORM TO ENROLLMENT SERVER (Fig.16.)
275
ACCOUNT CREATED?
265
No
RECEIVE AND DISPLAY UNSUCCESSFUL APPLICATION RESULT PAGE FROM ENROLLMENT SERVER
266
Yes
GENERATE KEYPAIR ON BUYER COMPUTER AND SUBMIT PUBLIC KEY TO ENROLLMENT SERVER
267
RECEIVE AND DISPLAY SUCCESSFUL APPLICATION RESULT PAGE FROM ENROLLMENT SERVER
276
RECEIVE DIGITAL CERTIFICATE FROM ENROLLMENT SERVER
278
DONE
279

Fig.15.

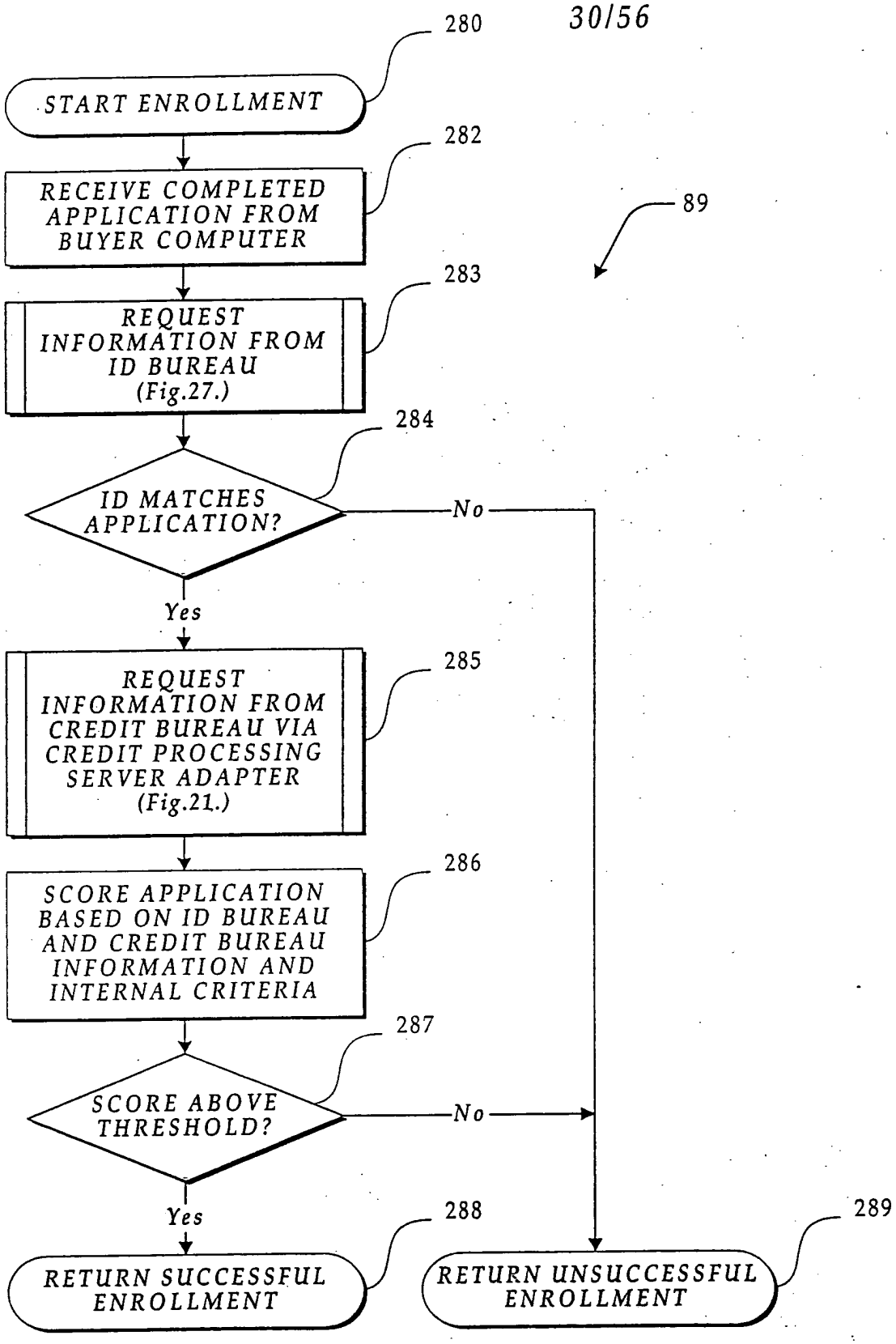
280
START ENROLLMENT
282
RECEIVE COMPLETED APPLICATION FROM BUYER COMPUTER
89
283
REQUEST INFORMATION FROM ID BUREAU (Fig.27.)
284
ID MATCHES APPLICATION?
No
Yes
285
REQUEST INFORMATION FROM CREDIT BUREAU VIA CREDIT PROCESSING SERVER ADAPTER (Fig.21.)
286
SCORE APPLICATION BASED ON ID BUREAU AND CREDIT BUREAU INFORMATION AND INTERNAL CRITERIA
287
SCORE ABOVE THRESHOLD?
No
Yes
288
RETURN SUCCESSFUL ENROLLMENT
289
RETURN UNSUCCESSFUL ENROLLMENT

Fig.16.

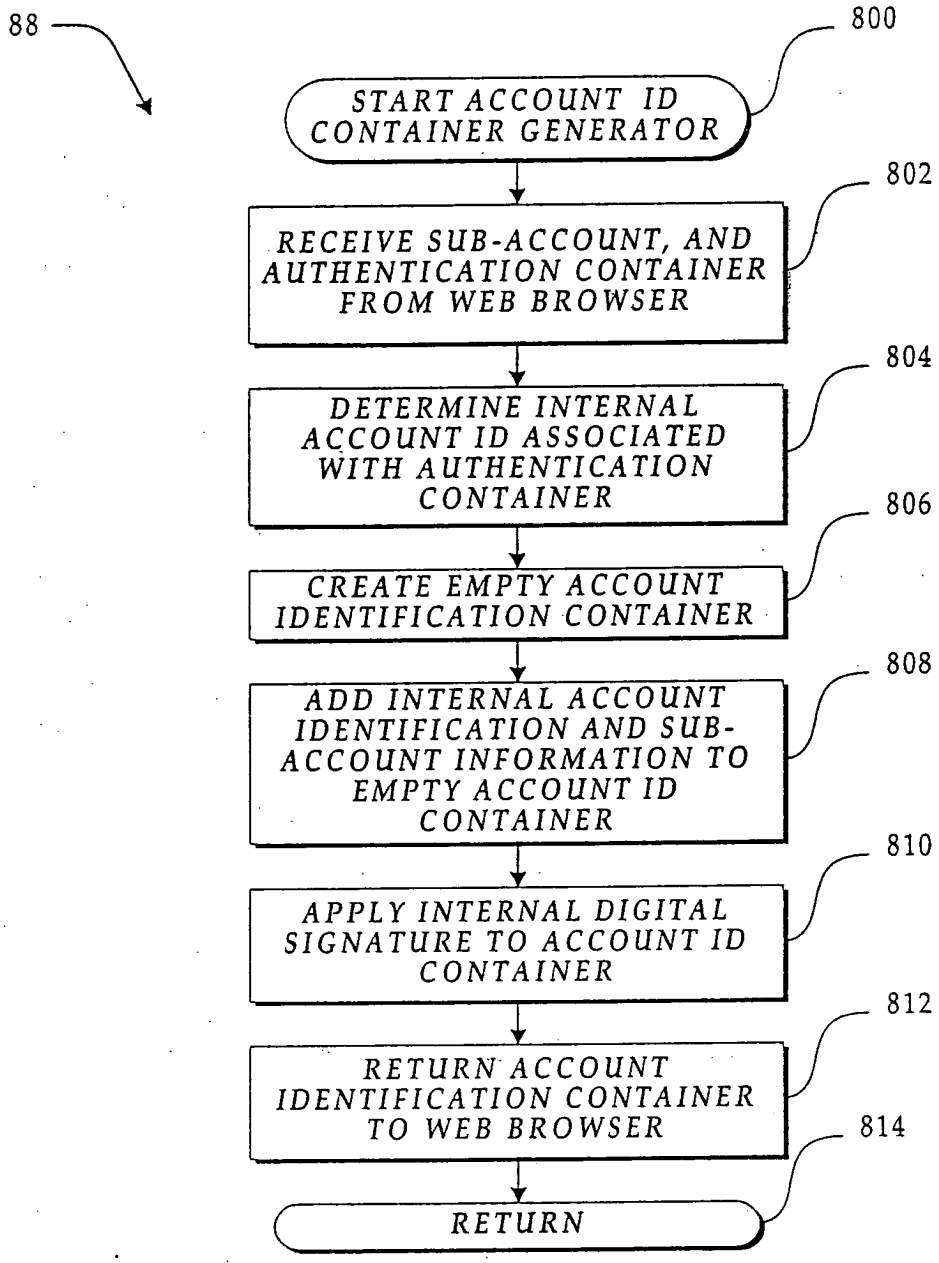
88
800
START ACCOUNT ID CONTAINER GENERATOR
802
RECEIVE SUB-ACCOUNT, AND AUTHENTICATION CONTAINER FROM WEB BROWSER
804
DETERMINE INTERNAL ACCOUNT ID ASSOCIATED WITH AUTHENTICATION CONTAINER
806
CREATE EMPTY ACCOUNT IDENTIFICATION CONTAINER
808
ADD INTERNAL ACCOUNT IDENTIFICATION AND SUB-ACCOUNT INFORMATION TO EMPTY ACCOUNT ID CONTAINER
810
APPLY INTERNAL DIGITAL SIGNATURE TO ACCOUNT ID CONTAINER
812
RETURN ACCOUNT IDENTIFICATION CONTAINER TO WEB BROWSER
814
RETURN

Fig.17.

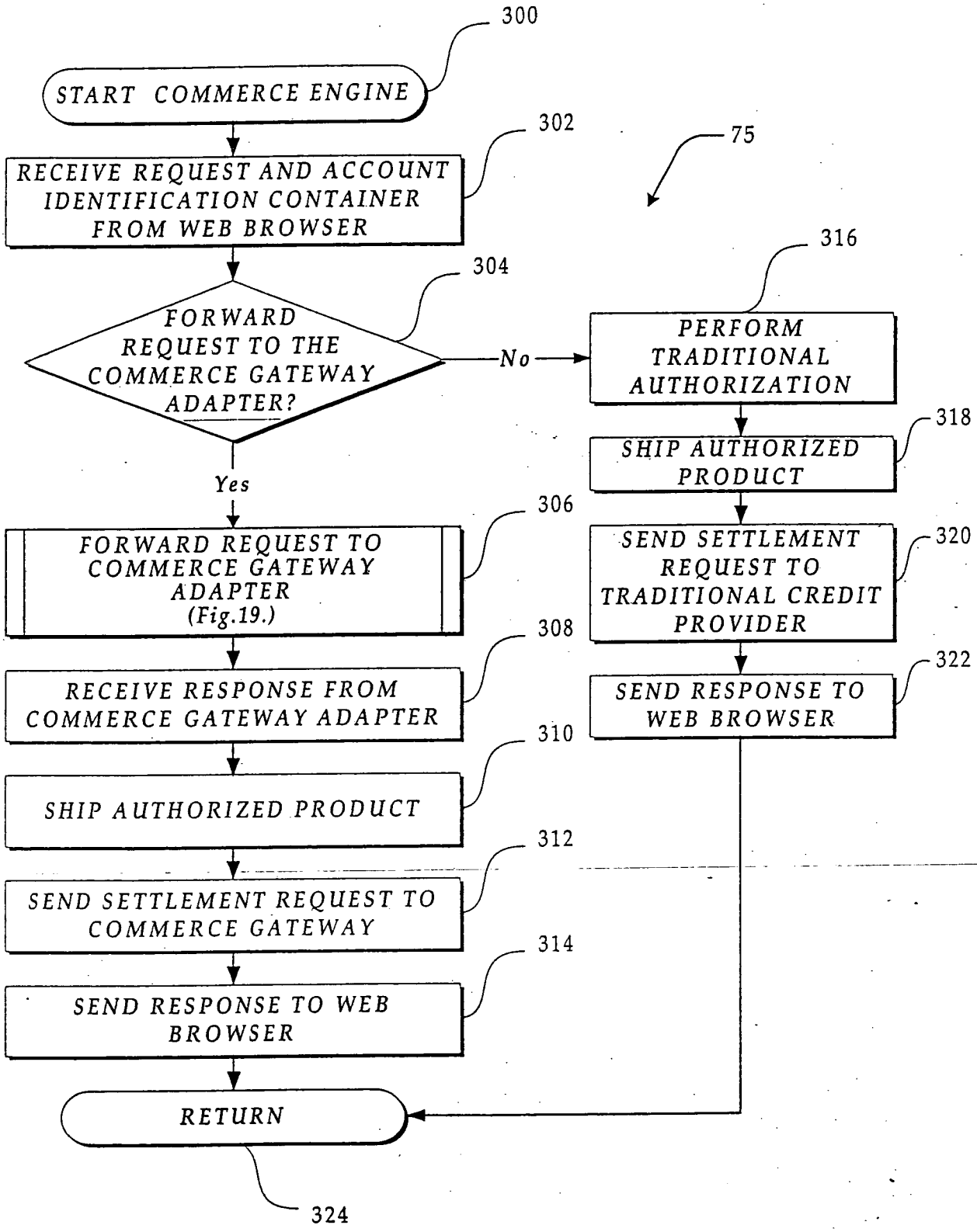
300
START COMMERCE ENGINE
302
RECEIVE REQUEST AND ACCOUNT IDENTIFICATION CONTAINER FROM WEB BROWSER
75
304
FORWARD REQUEST TO THE COMMERCE GATEWAY ADAPTER?
No
316
PERFORM TRADITIONAL AUTHORIZATION
318
SHIP AUTHORIZED PRODUCT
320
SEND SETTLEMENT REQUEST TO TRADITIONAL CREDIT PROVIDER
322
SEND RESPONSE TO WEB BROWSER
Yes
306
FORWARD REQUEST TO COMMERCE GATEWAY ADAPTER (Fig.19.)
308
RECEIVE RESPONSE FROM COMMERCE GATEWAY ADAPTER
310
SHIP AUTHORIZED PRODUCT
312
SEND SETTLEMENT REQUEST TO COMMERCE GATEWAY
314
SEND RESPONSE TO WEB BROWSER
RETURN
324

Fig.18.

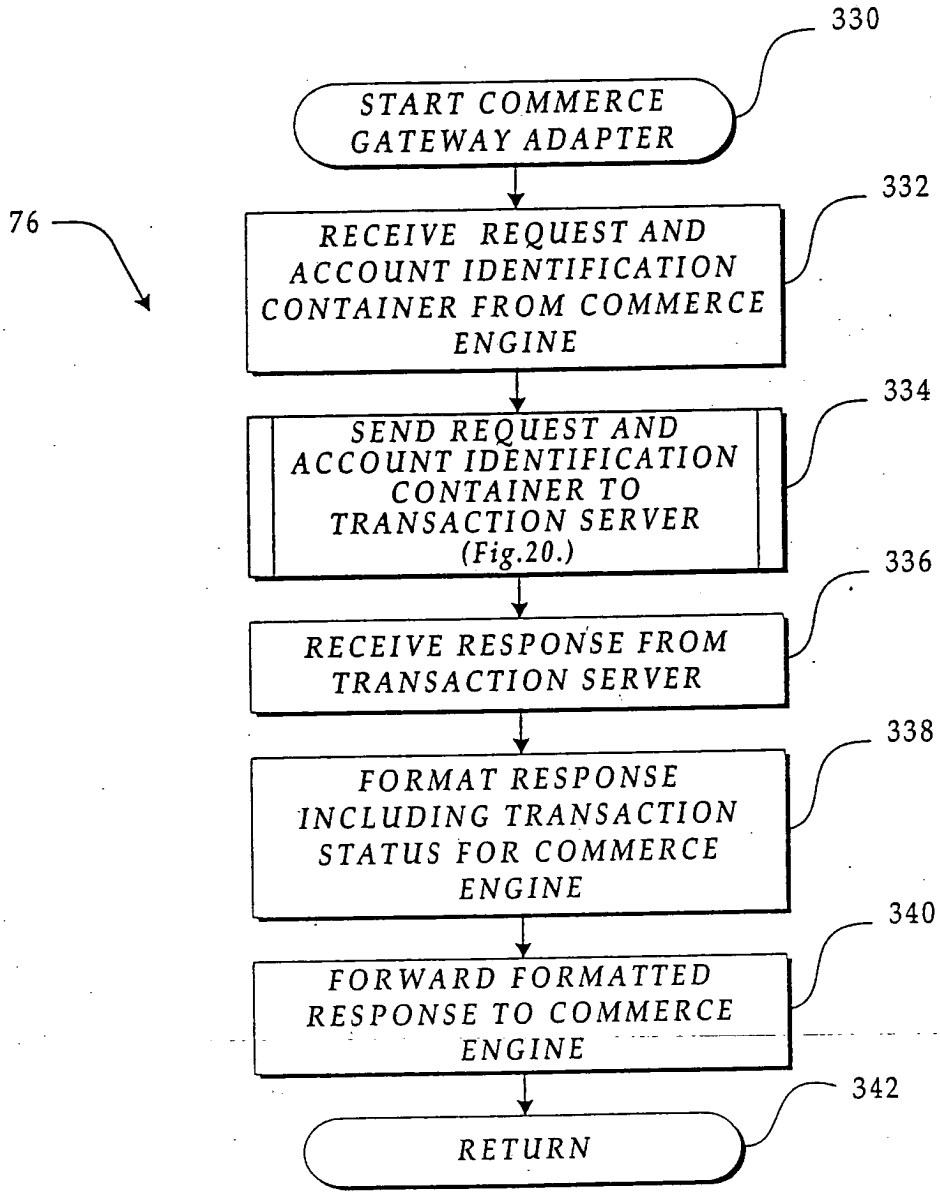
330
START COMMERCE GATEWAY ADAPTER
76
332
RECEIVE REQUEST AND ACCOUNT IDENTIFICATION CONTAINER FROM COMMERCE ENGINE
334
SEND REQUEST AND ACCOUNT IDENTIFICATION CONTAINER TO TRANSACTION SERVER (Fig.20.)
336
RECEIVE RESPONSE FROM TRANSACTION SERVER
338
FORMAT RESPONSE INCLUDING TRANSACTION STATUS FOR COMMERCE ENGINE
340
FORWARD FORMATTED RESPONSE TO COMMERCE ENGINE
342
RETURN

Fig.19.

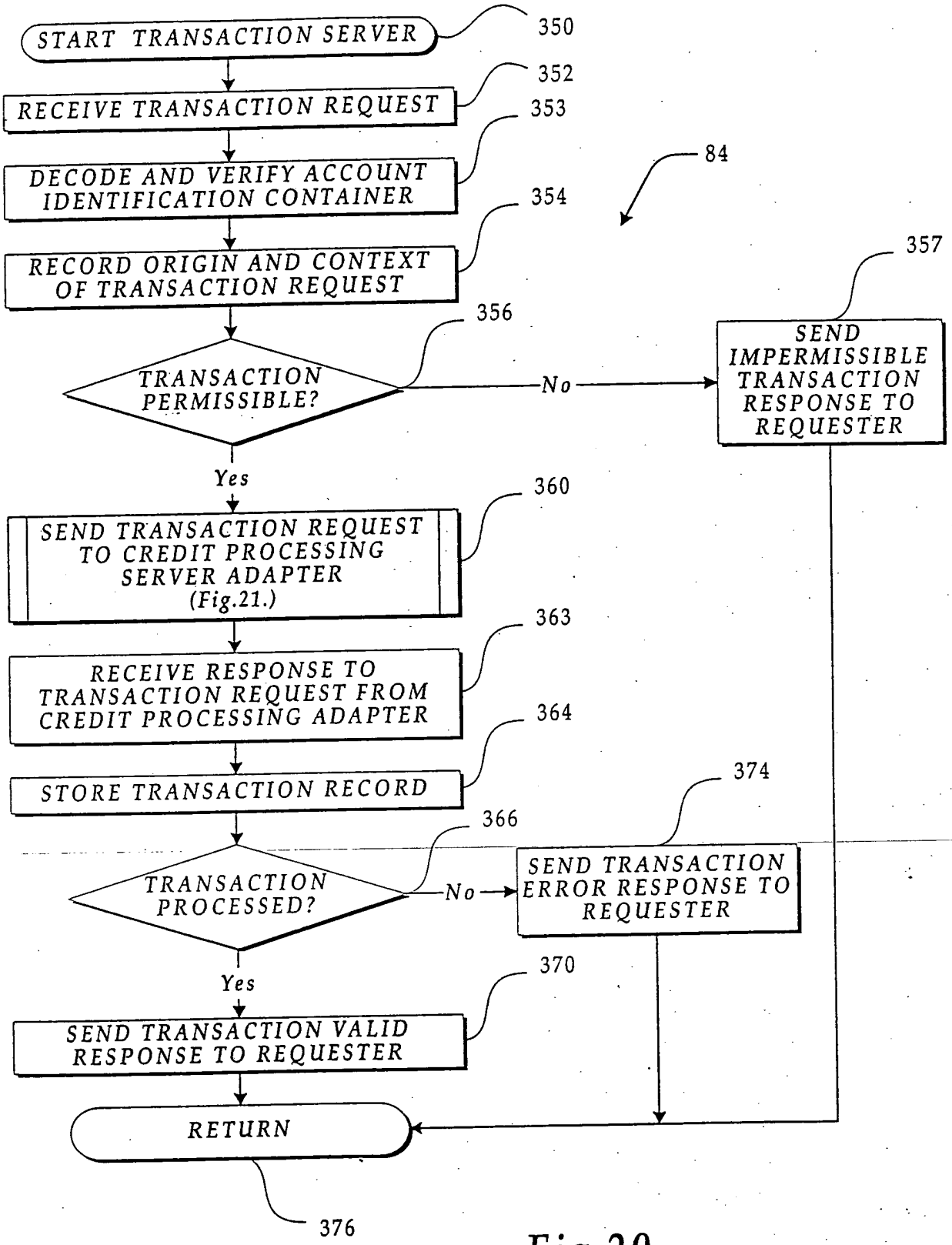
START TRANSACTION SERVER
350
RECEIVE TRANSACTION REQUEST
352
DECODE AND VERIFY ACCOUNT IDENTIFICATION CONTAINER
353
84
RECORD ORIGIN AND CONTEXT OF TRANSACTION REQUEST
354
357
SEND IMPERMISSIBLE TRANSACTION RESPONSE TO REQUESTER
356
TRANSACTION PERMISSIBLE?
No
Yes
SEND TRANSACTION REQUEST TO CREDIT PROCESSING SERVER ADAPTER (Fig.21.)
360
RECEIVE RESPONSE TO TRANSACTION REQUEST FROM CREDIT PROCESSING ADAPTER
363
STORE TRANSACTION RECORD
364
374
SEND TRANSACTION ERROR RESPONSE TO REQUESTER
366
TRANSACTION PROCESSED?
No
Yes
370
SEND TRANSACTION VALID RESPONSE TO REQUESTER
RETURN
376

Fig.20.

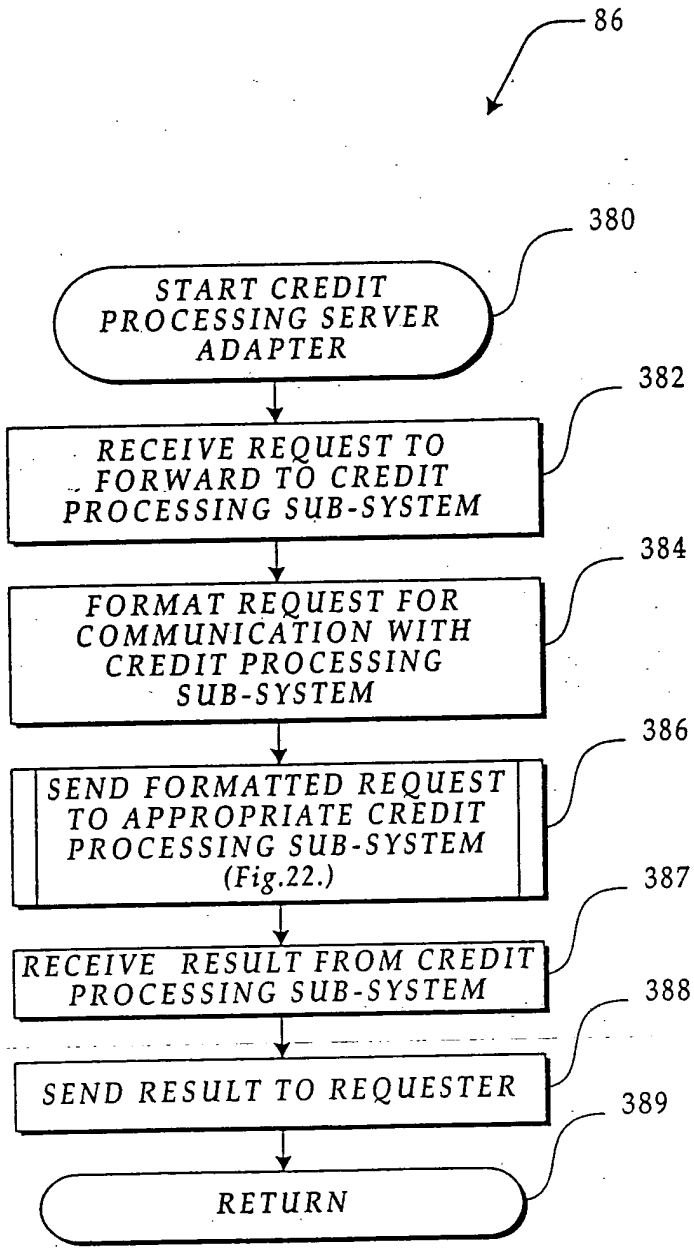
86
380
START CREDIT PROCESSING SERVER ADAPTER
382
RECEIVE REQUEST TO FORWARD TO CREDIT PROCESSING SUB-SYSTEM
384
FORMAT REQUEST FOR COMMUNICATION WITH CREDIT PROCESSING SUB-SYSTEM
386
SEND FORMATTED REQUEST TO APPROPRIATE CREDIT PROCESSING SUB-SYSTEM (Fig.22.)
387
RECEIVE RESULT FROM CREDIT PROCESSING SUB-SYSTEM
388
SEND RESULT TO REQUESTER
389
RETURN

Fig.21.

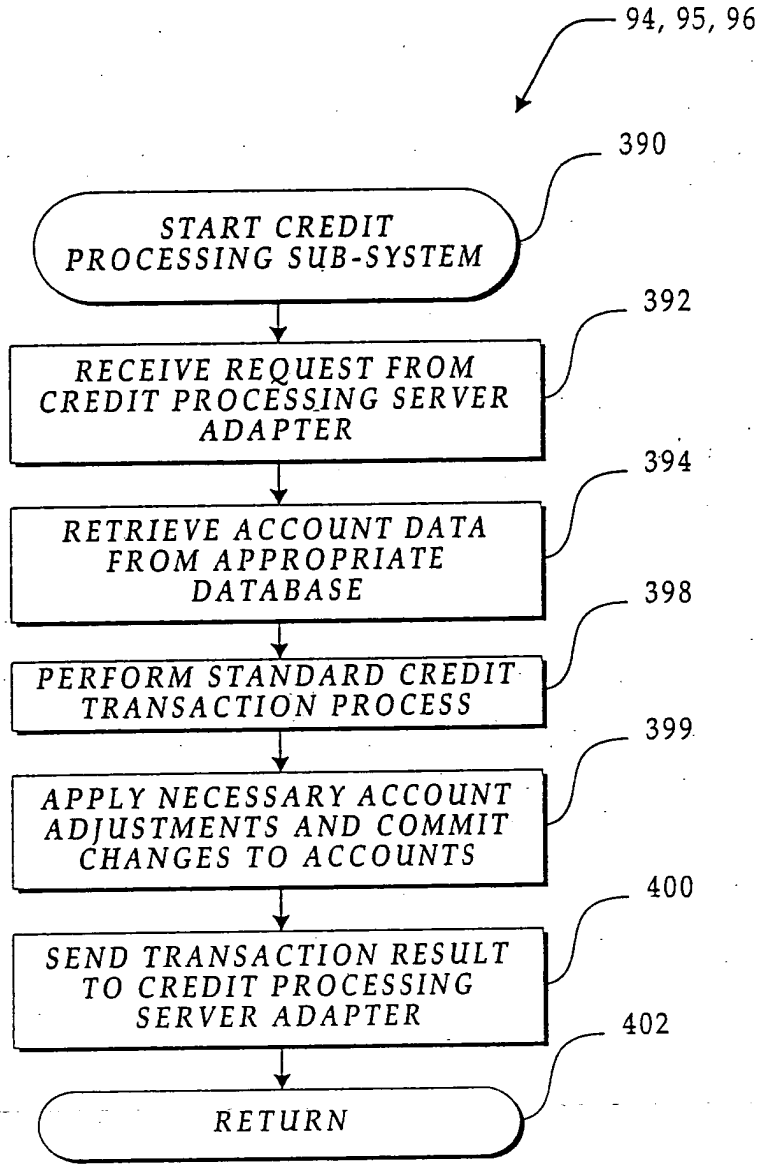
94, 95, 96
390
START CREDIT PROCESSING SUB-SYSTEM
392
RECEIVE REQUEST FROM CREDIT PROCESSING SERVER ADAPTER
394
RETRIEVE ACCOUNT DATA FROM APPROPRIATE DATABASE
398
PERFORM STANDARD CREDIT TRANSACTION PROCESS
399
APPLY NECESSARY ACCOUNT ADJUSTMENTS AND COMMIT CHANGES TO ACCOUNTS
400
SEND TRANSACTION RESULT TO CREDIT PROCESSING SERVER ADAPTER
402
RETURN

Fig.22.

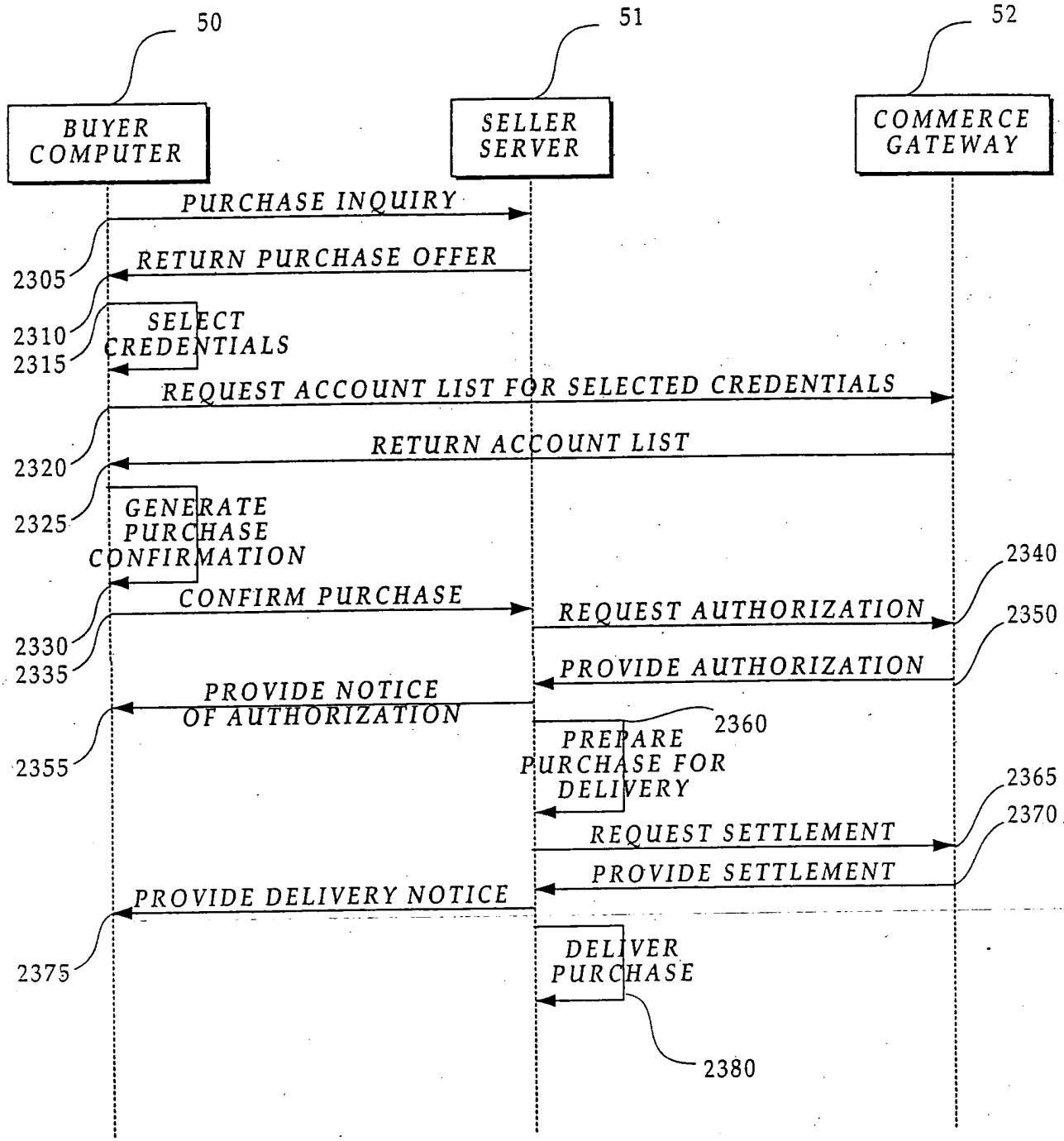
50
51
52
BUYER COMPUTER
SELLER SERVER
COMMERCE GATEWAY
PURCHASE INQUIRY
2305
RETURN PURCHASE OFFER
2310
SELECT CREDENTIALS
2315
REQUEST ACCOUNT LIST FOR SELECTED CREDENTIALS
2320
RETURN ACCOUNT LIST
2325
GENERATE PURCHASE CONFIRMATION
2330
CONFIRM PURCHASE
2335
REQUEST AUTHORIZATION
2340
PROVIDE AUTHORIZATION
2350
PROVIDE NOTICE OF AUTHORIZATION
2355
2360
PREPARE PURCHASE FOR DELIVERY
REQUEST SETTLEMENT
2365
PROVIDE SETTLEMENT
2370
PROVIDE DELIVERY NOTICE
2375
DELIVER PURCHASE
2380

Fig.23.

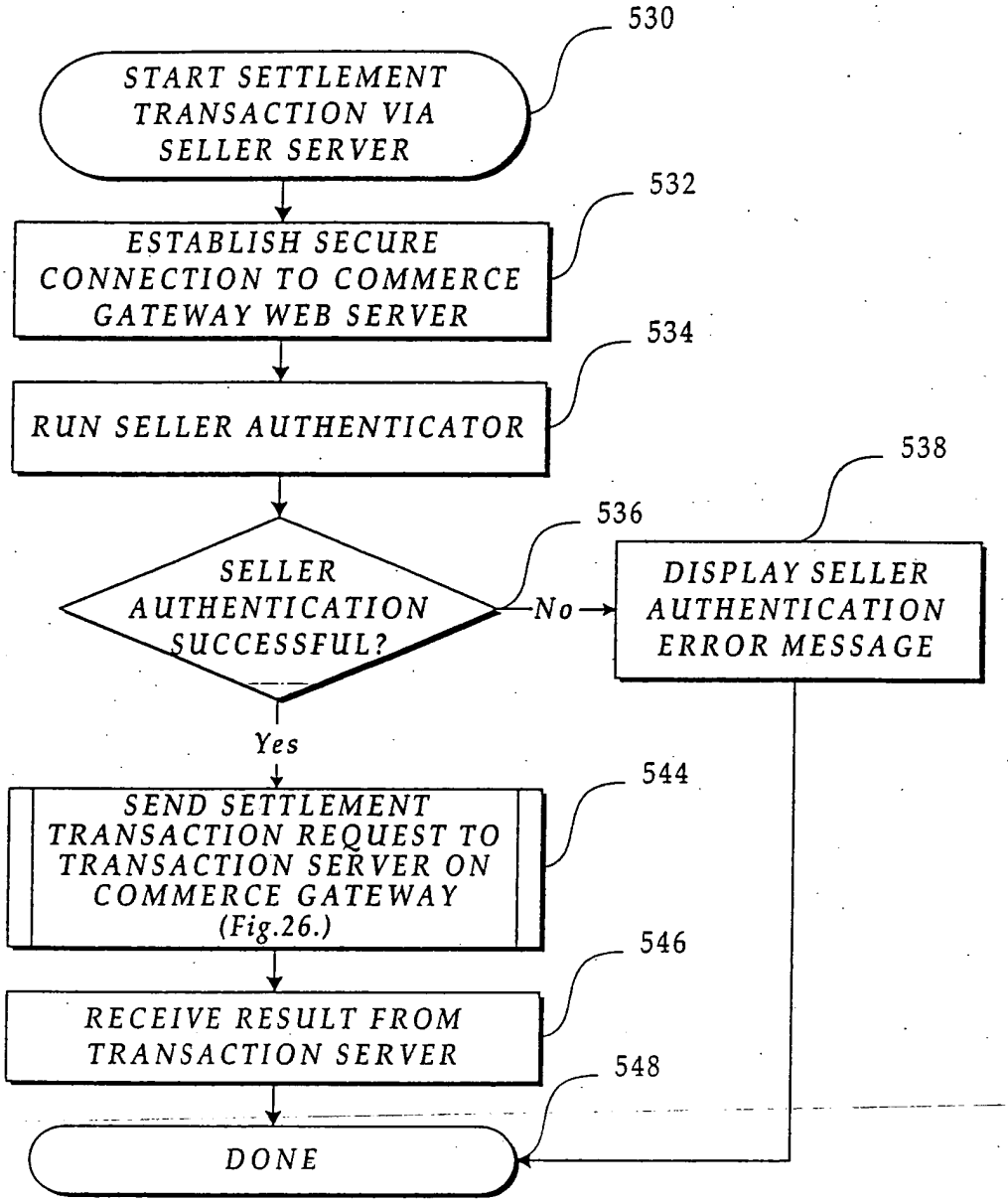
530
START SETTLEMENT TRANSACTION VIA SELLER SERVER
532
ESTABLISH SECURE CONNECTION TO COMMERCE GATEWAY WEB SERVER
534
RUN SELLER AUTHENTICATOR
536
SELLER AUTHENTICATION SUCCESSFUL?
No
538
DISPLAY SELLER AUTHENTICATION ERROR MESSAGE
Yes
544
SEND SETTLEMENT TRANSACTION REQUEST TO TRANSACTION SERVER ON COMMERCE GATEWAY (Fig.26.)
546
RECEIVE RESULT FROM TRANSACTION SERVER
548
DONE

Fig.24.

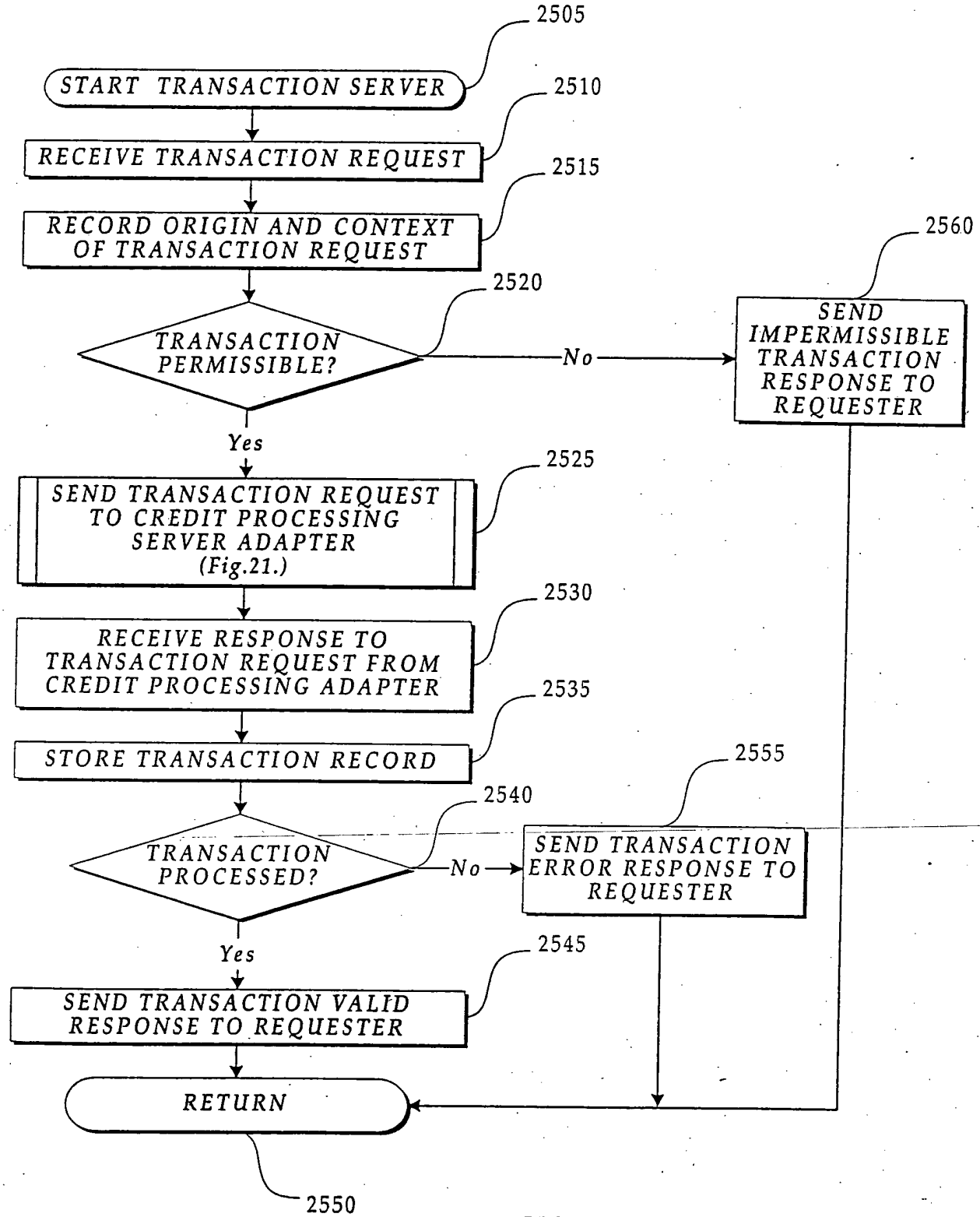
2505
START TRANSACTION SERVER
2510
RECEIVE TRANSACTION REQUEST
2515
RECORD ORIGIN AND CONTEXT OF TRANSACTION REQUEST
2520
TRANSACTION PERMISSIBLE?
No
2560
SEND IMPERMISSIBLE TRANSACTION RESPONSE TO REQUESTER
Yes
2525
SEND TRANSACTION REQUEST TO CREDIT PROCESSING SERVER ADAPTER (Fig.21.)
2530
RECEIVE RESPONSE TO TRANSACTION REQUEST FROM CREDIT PROCESSING ADAPTER
2535
STORE TRANSACTION RECORD
2540
TRANSACTION PROCESSED?
No
2555
SEND TRANSACTION ERROR RESPONSE TO REQUESTER
Yes
2545
SEND TRANSACTION VALID RESPONSE TO REQUESTER
RETURN
2550

Fig.25.

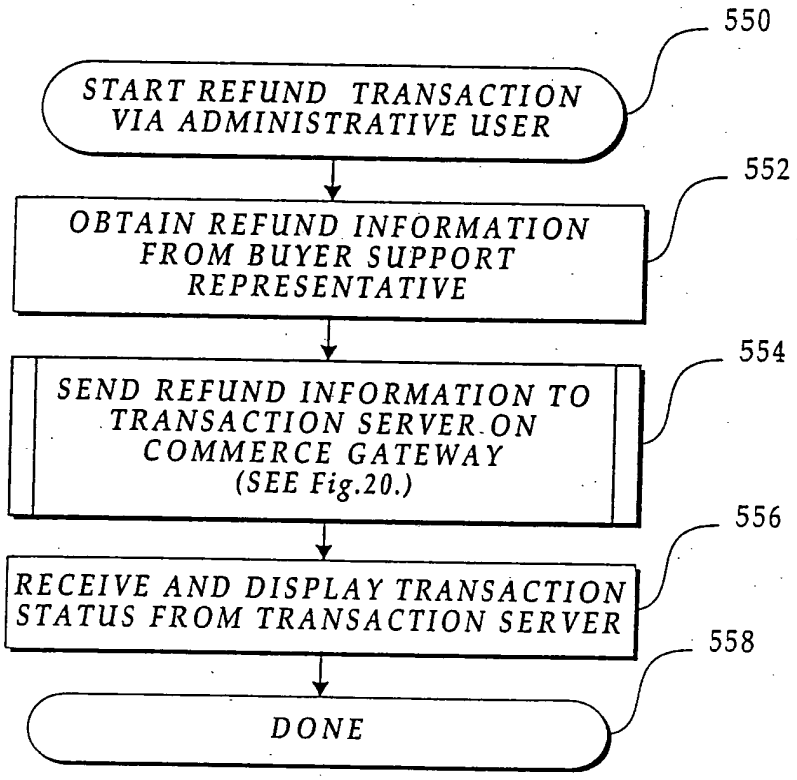
550
START REFUND TRANSACTION VIA ADMINISTRATIVE USER
552
OBTAIN REFUND INFORMATION FROM BUYER SUPPORT REPRESENTATIVE
554
SEND REFUND INFORMATION TO TRANSACTION SERVER ON COMMERCE GATEWAY (SEE Fig.20.)
556
RECEIVE AND DISPLAY TRANSACTION STATUS FROM TRANSACTION SERVER
558
DONE

Fig.26.

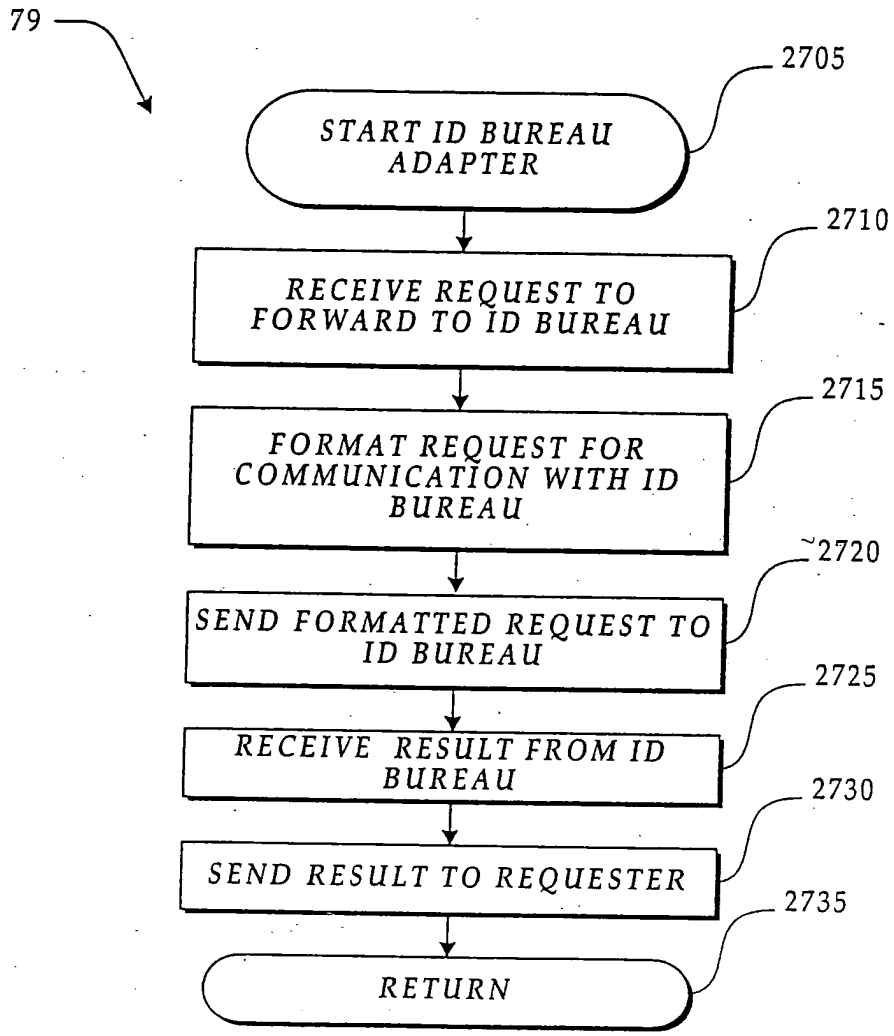
79
2705
START ID BUREAU ADAPTER
2710
RECEIVE REQUEST TO FORWARD TO ID BUREAU
2715
FORMAT REQUEST FOR COMMUNICATION WITH ID BUREAU
2720
SEND FORMATTED REQUEST TO ID BUREAU
2725
RECEIVE RESULT FROM ID BUREAU
2730
SEND RESULT TO REQUESTER
2735
RETURN

Fig.27.

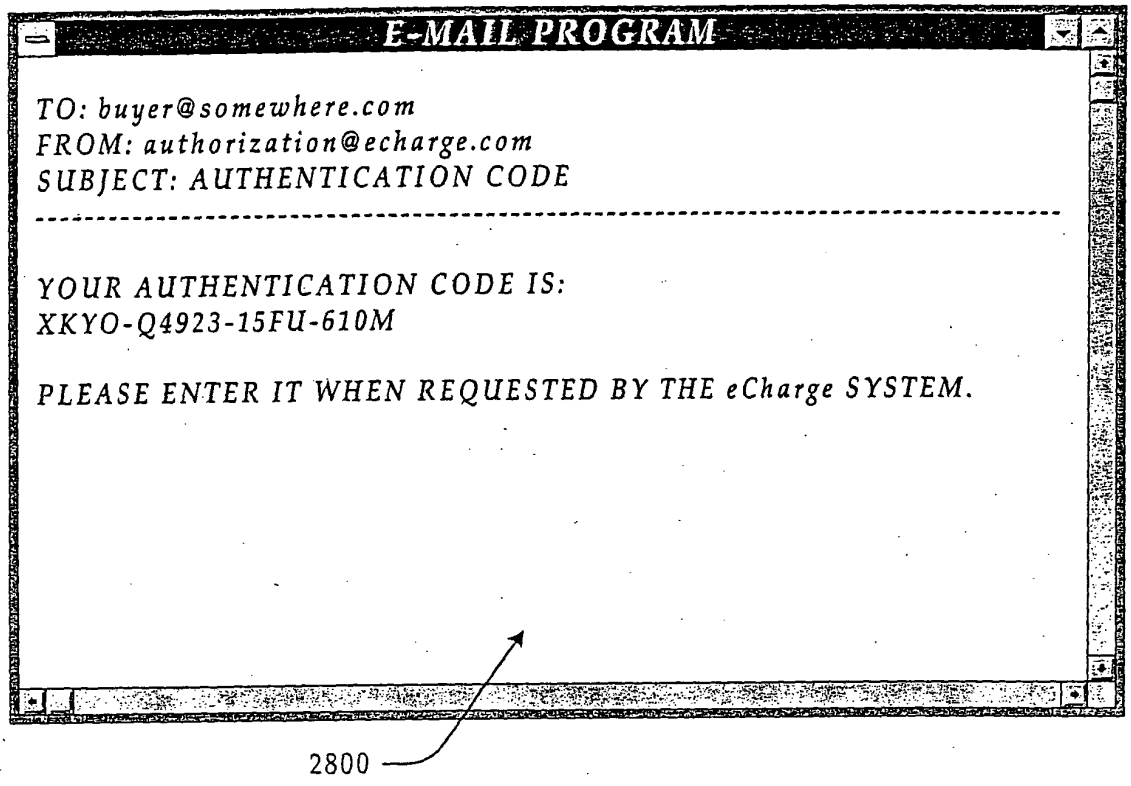
E-MAIL PROGRAM
TO: buyer@somewhere.com
FROM: authorization@echarge.com
SUBJECT: AUTHENTICATION CODE
YOUR AUTHENTICATION CODE IS:
XKYO-Q4923-15FU-610M
PLEASE ENTER IT WHEN REQUESTED BY THE eCharge SYSTEM.
2800

Fig.28.

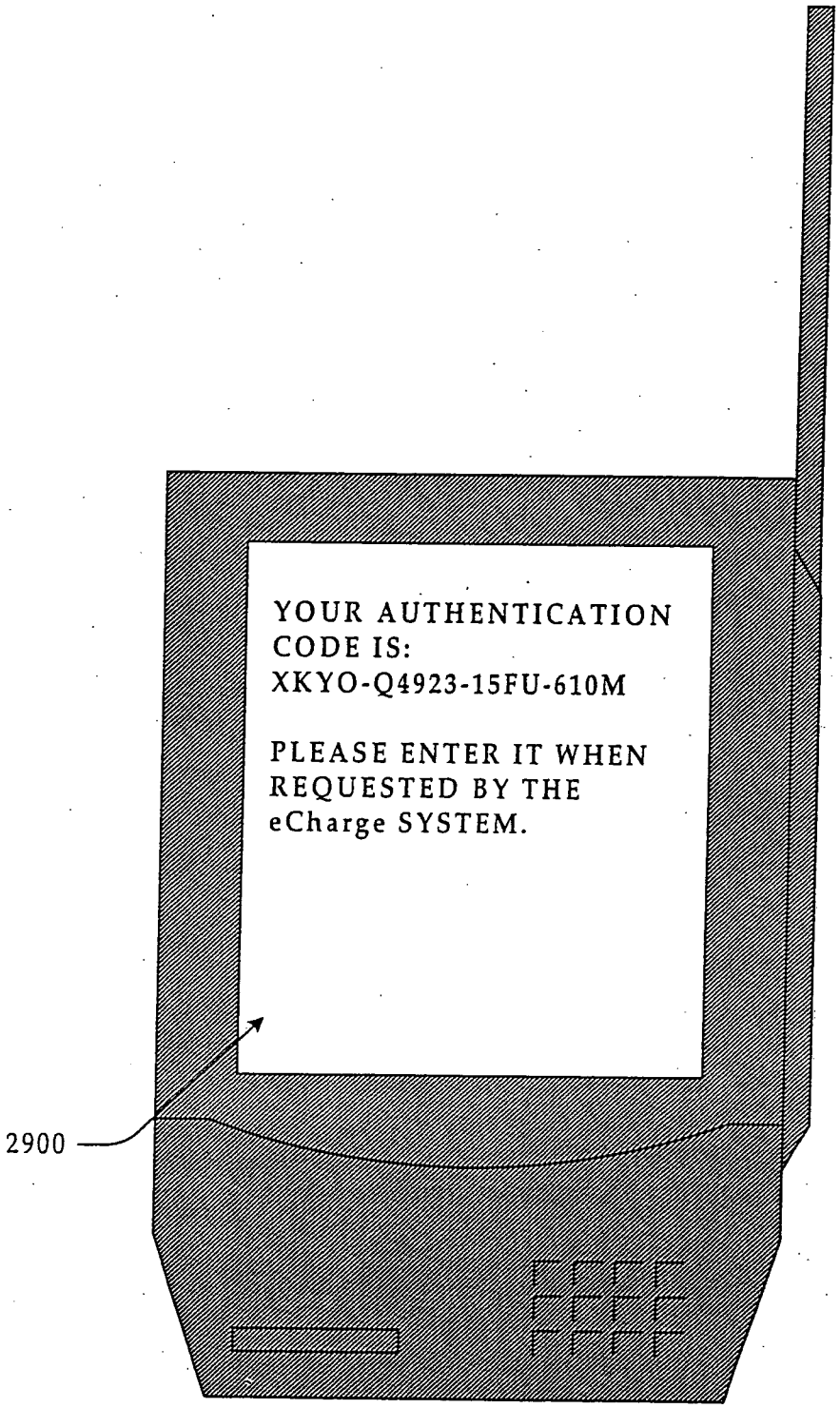
YOUR AUTHENTICATION CODE IS:
XKYO-Q4923-15FU-610M
PLEASE ENTER IT WHEN REQUESTED BY THE eCharge SYSTEM.
2900

Fig.29.

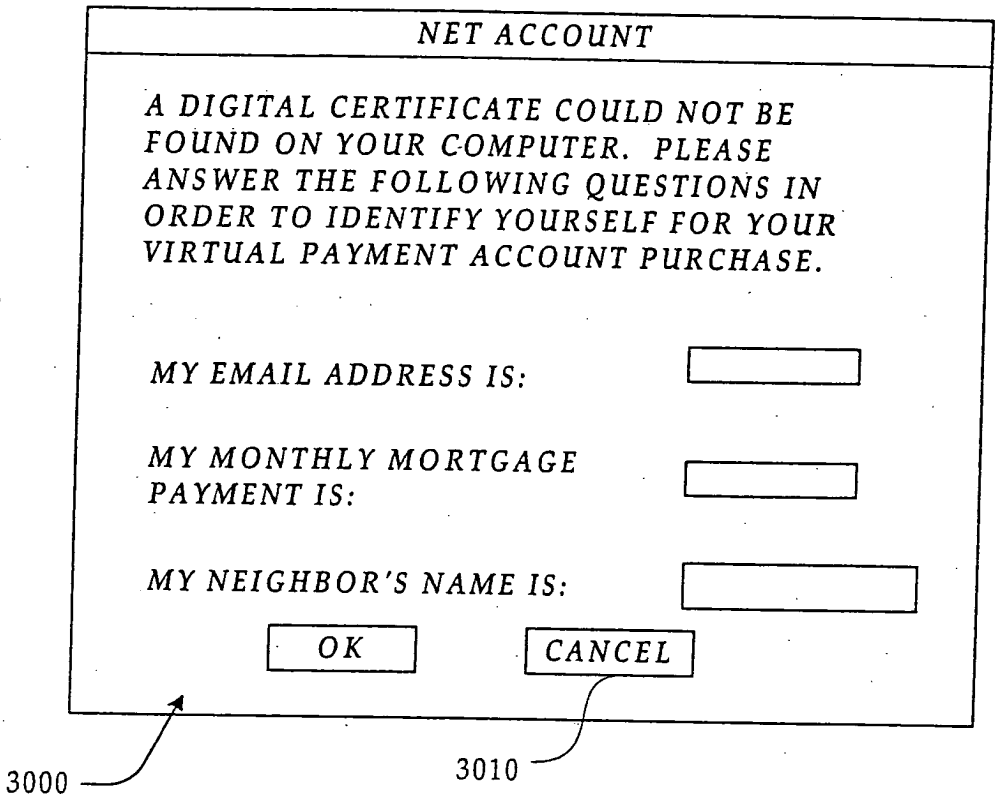
NET ACCOUNT
A DIGITAL CERTIFICATE COULD NOT BE FOUND ON YOUR COMPUTER. PLEASE ANSWER THE FOLLOWING QUESTIONS IN ORDER TO IDENTIFY YOURSELF FOR YOUR VIRTUAL PAYMENT ACCOUNT PURCHASE.
MY EMAIL ADDRESS IS:
MY MONTHLY MORTGAGE PAYMENT IS:
MY NEIGHBOR'S NAME IS:
OK
CANCEL
3000
3010

Fig.30.

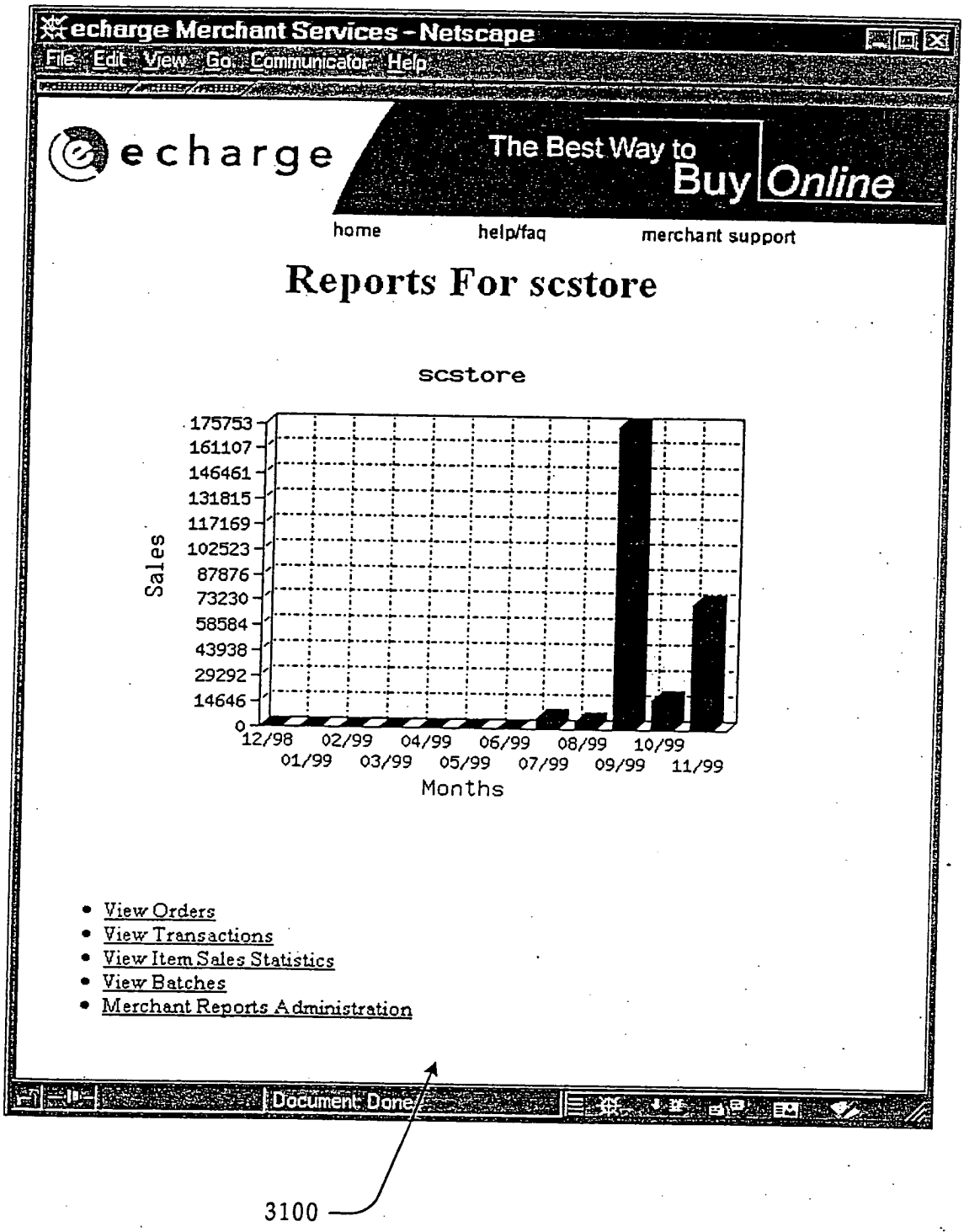
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
Reports For scstore
scstore
Sales
175753
161107
146461
131815
117169
102523
87876
73230
58584
43938
29292
14646
0
12/98
01/99
02/99
03/99
04/99
05/99
06/99
07/99
08/99
09/99
10/99
11/99
Months
View Orders
View Transactions
View Item Sales Statistics
View Batches
Merchant Reports Administration
Document: Done
3100

Fig.31.

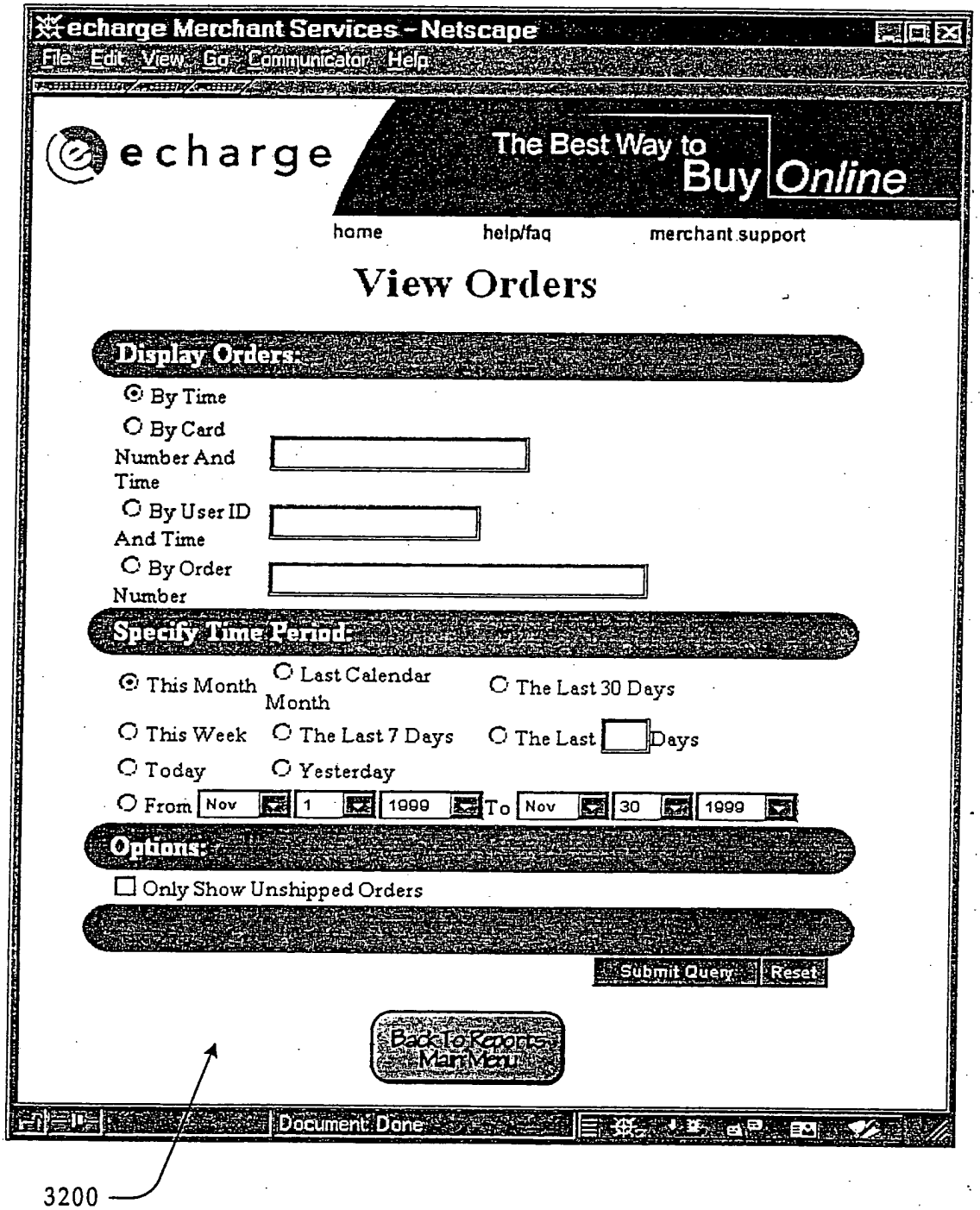
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
View Orders
Display Orders:
By Time
By Card Number And Time
By User ID And Time
By Order Number
Specify Time Period:
This Month
Last Calendar Month
The Last 30 Days
This Week
The Last 7 Days
The Last Days
Today
Yesterday
From Nov 1 1999 To Nov 30 1999
Options:
Only Show Unshipped Orders
Submit Query
Reset
Back To Reports Main Menu
Document: Done
3200

Fig.32.

echarge Merchant Services - Netscape

File Edit View Go Communicator Help

echarge

The Best Way to Buy Online

home help/faq merchant support

Orders Received

11/01/1999 - 11/30/1999

Select	Shipped	Order #	User ID	Date	Name	Amount
☐	Y	63.17.30.226-942207186-5906-2685-7	Steve Atherton	11/09/99 22:13	Steve Atherton	0.00
☐	Y	127.0.0.1-942207097-3581-2685-6	nobody	11/09/99 22:11	John Q. Public	35.74
☐	Y	63.17.30.226-942206630-776811-2685-8	Steve Atherton	11/09/99 22:03	Steve Atherton	0.00
☐	N	63.17.30.226-942206586-522348-2685-5	Steve Atherton	11/09/99 22:03	Steve Atherton	25.60
☐	Y	63.17.30.226-942206317-108643-2685-6	Steve Atherton	11/09/99 21:58	Steve Atherton	0.00
☐	Y	127.0.0.1-942206199-23605-2685-4	nobody	11/09/99 21:56	John Q. Public	35.74
☐	Y	63.17.30.226-942206028-628577-2685-8	Steve Atherton	11/09/99 21:53	Steve Atherton	0.00
☐	N	63.17.30.226-942205792-640233-2685-7	Steve Atherton	11/09/99 21:49	Steve Atherton	28.90
☐	Y	63.17.30.226-942205528-554830-2685-5	Steve Atherton	11/09/99 21:45	Steve Atherton	0.00
☐	Y	127.0.0.1-942205291-403501-2685-7	nobody	11/09/99 21:41	John Q. Public	35.74
☐	Y	127.0.0.1-942204377-503866-2685-8	nobody	11/09/99 21:26	John Q. Public	35.74
☐	Y	127.0.0.1-942203485-563787-2685-8	nobody	11/09/99 21:11	John Q. Public	35.74
☐	Y	127.0.0.1-942202556-613526-2685-5	nobody	11/09/99 20:55	John Q. Public	35.74
☐	N	216.35.6.208-942201709-186714-2685-5		11/09/99 20:41	Eric M Link	55.91
☐	Y	127.0.0.1-942201656-943709-2685-8	nobody	11/09/99 20:40	John Q. Public	35.74
☐	Y	127.0.0.1-942200756-873895-2685-8	nobody	11/09/99 20:25	John Q. Public	35.74
☐	Y	127.0.0.1-942199856-523583-2685-6	nobody	11/09/99 20:10	John Q. Public	35.74
☐	Y	127.0.0.1-942198956-603539-2685-5	nobody	11/09/99 19:55	John Q. Public	35.74
☐	Y	127.0.0.1-942198056-633587-2685-4	nobody	11/09/99 19:40	John Q. Public	35.74
☐	Y	127.0.0.1-942197156-533538-2685-5	nobody	11/09/99 19:25	John Q. Public	35.74
☐	Y	127.0.0.1-942196256-923570-2685-7	nobody	11/09/99 19:10	John Q. Public	35.74
☐	Y	127.0.0.1-942195356-503526-2685-5	nobody	11/09/99 18:55	John Q. Public	35.74
☐	Y	127.0.0.1-942194456-523610-2685-5	nobody	11/09/99 18:40	John Q. Public	35.74
☐	Y	127.0.0.1-942193557-854160-2685-5	nobody	11/09/99 18:25	John Q. Public	35.74
☐	Y	127.0.0.1-942192666-764198-2685-6	nobody	11/09/99 18:11	John Q. Public	35.74
25 Order(s) out of 1594 Listed						717.99
Total						73352.65

Tax and Shipping

Tax:	52.45
Shipping:	150.90

Email All Customers Listed

Work With Selected Orders: Reset

1 2 3 4 5 6 7 8 9 10 [Next >>]

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Document Done

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Fig.33.

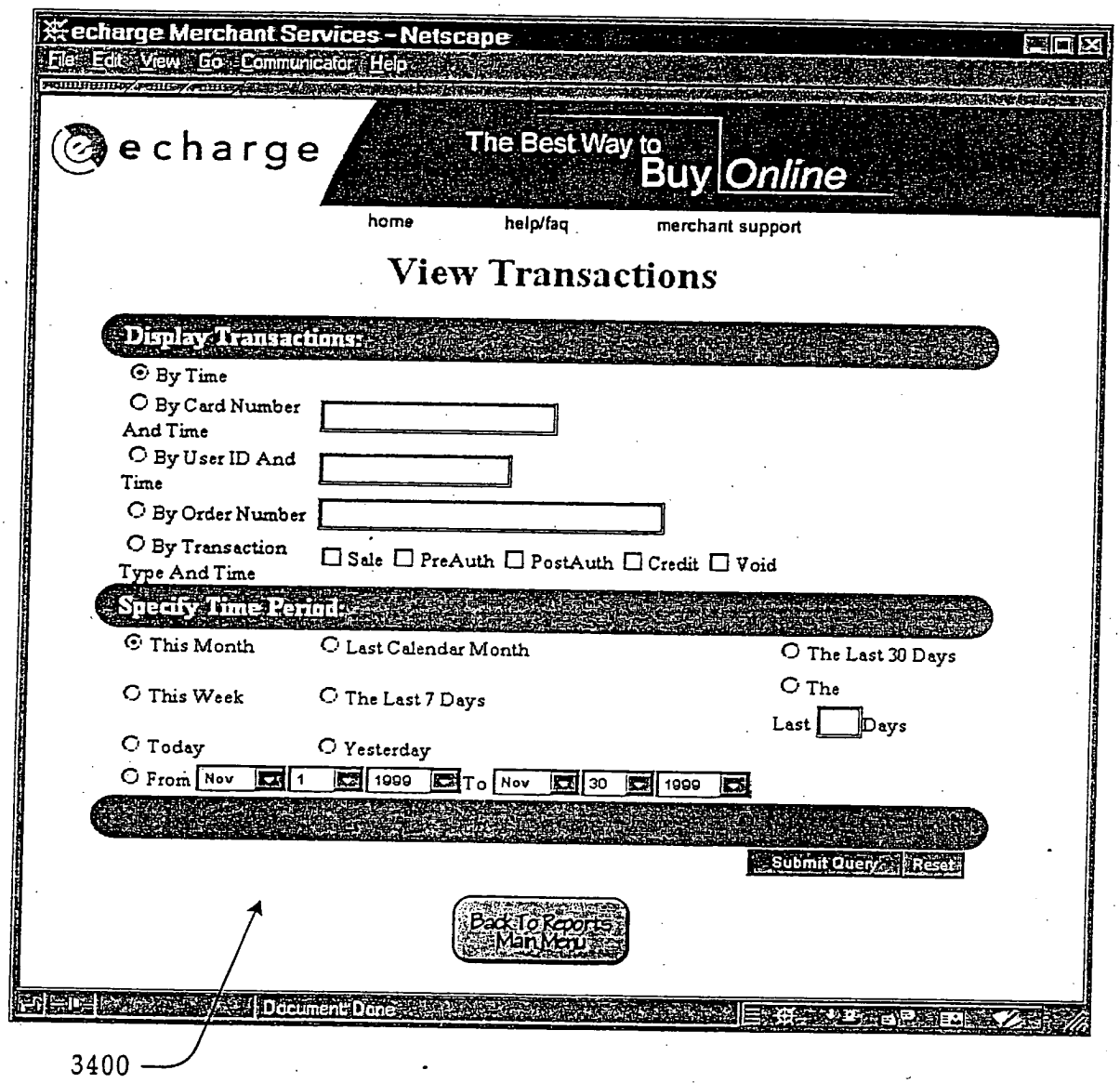
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
View Transactions
Display Transactions:
By Time
By Card Number And Time
By User ID And Time
By Order Number
By Transaction Type And Time
Sale PreAuth PostAuth Credit Void
Specify Time Period:
This Month
Last Calendar Month
The Last 30 Days
This Week
The Last 7 Days
The Last Days
Today
Yesterday
From Nov 1 1999 To Nov 30 1999
Submit Query
Reset
Back To Reports Main Menu
Document Done
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Fig.34.

echarge Merchant Services - Netscape

File Edit View Go Communicator Help

echarge The Best Way to Buy Online

home help/faq merchant support

Transactions Processed

11/01/1999 - 11/30/1999

Order #	Date	User ID	Type	Card Number	Exp Date	Approval	Amount
63.17.30.226-942207186-5906-2685-7	11/09/99 22:13	Steve Atherton	Void	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942207186-5906-2685-7	11/09/99 22:13	Steve Atherton	Credit	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942207186-5906-2685-7	11/09/99 22:13	Steve Atherton	PostAuth	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942207186-5906-2685-7	11/09/99 22:13	Steve Atherton	PreAuth	4111...1111	12/2001	Y:06TEST0a9d00007f:YNA:501002319459089TESTV 01:	25.60
127.0.0.1-942207097-3581-2685-6	11/09/99 22:11	nobody	Sale	4111...1111	12/2001	Y:37TEST0a9d00007e:YNA:501001318567004TESTV 01:	35.74
63.17.30.226-942206630-776811-2685-8	11/09/99 22:04	Steve Atherton	Void	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942206630-776811-2685-8	11/09/99 22:04	Steve Atherton	Credit	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942206630-776811-2685-8	11/09/99 22:04	Steve Atherton	PostAuth	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942206630-776811-2685-8	11/09/99 22:03	Steve Atherton	PreAuth	4111...1111	12/2001	Y:51TEST0a9d00007c:YNA:501001313905091TESTV 01:	25.60
63.17.30.226-942206586-522348-2685-5	11/09/99 22:03	Steve Atherton	PreAuth	4111...1111	12/2001	Y:13TEST0a9d00007b:YNA:501002313522020TESTV 01:	25.60
63.17.30.226-942206317-108643-2685-6	11/09/99 21:59	Steve Atherton	Void	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942206317-108643-2685-6	11/09/99 21:59	Steve Atherton	Credit	4111...1111	12/2001	Y:Accepted	25.60
63.17.30.226-942206317-108643-2685-6	11/09/99 21:58	Steve Atherton	PreAuth	4111...1111	12/2001	Y:38TEST0a9d000077:YNA:501001310770103TESTV 01:	25.60
127.0.0.1-942206199-23605-2685-4	11/09/99 21:56	nobody	Sale	4111...1111	12/2001	Y:39TEST0a9d000076:YNA:	35.74
63.17.30.226-942206028-628577-2685-8	11/09/99 21:54	Steve Atherton	Void	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942206028-628577-2685-8	11/09/99 21:54	Steve Atherton	Credit	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942206028-628577-2685-8	11/09/99 21:54	Steve Atherton	PostAuth	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942206028-628577-2685-8	11/09/99 21:53	Steve Atherton	PreAuth	4111...1111	12/2001	Y:49TEST0a9d000074:YNA:501001307888061TESTV 01:	28.90
63.17.30.226-942205792-640233-2685-7	11/09/99 21:49	Steve Atherton	PreAuth	4111...1111	12/2001	Y:53TEST0a9d000073:YNA:501002305522039TESTV 01:	28.90
63.17.30.226-942205528-554830-2685-5	11/09/99 21:46	Steve Atherton	Void	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942205528-554830-2685-5	11/09/99 21:45	Steve Atherton	Credit	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942205528-554830-2685-5	11/09/99 21:45	Steve Atherton	PostAuth	4111...1111	12/2001	Y:Accepted	28.90
63.17.30.226-942205528-554830-2685-5	11/09/99 21:45	Steve Atherton	PreAuth	4111...1111	12/2001	Y:29TEST0a9d000071:YNA:501002302881019TESTV 01:	28.90
127.0.0.1-942205291-403501-2685-7	11/09/99 21:41	nobody	Sale	4111...1111	12/2001	Y:32TEST0a9d000070:YNA:501001300512016TESTV 01:	35.74
Page total							161.72
Total							73319.63

25 Transaction(s) out of 2450 listed

1 2 3 4 5 6 7 8 9 10 [Next >>]

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Document Done

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Fig.35.

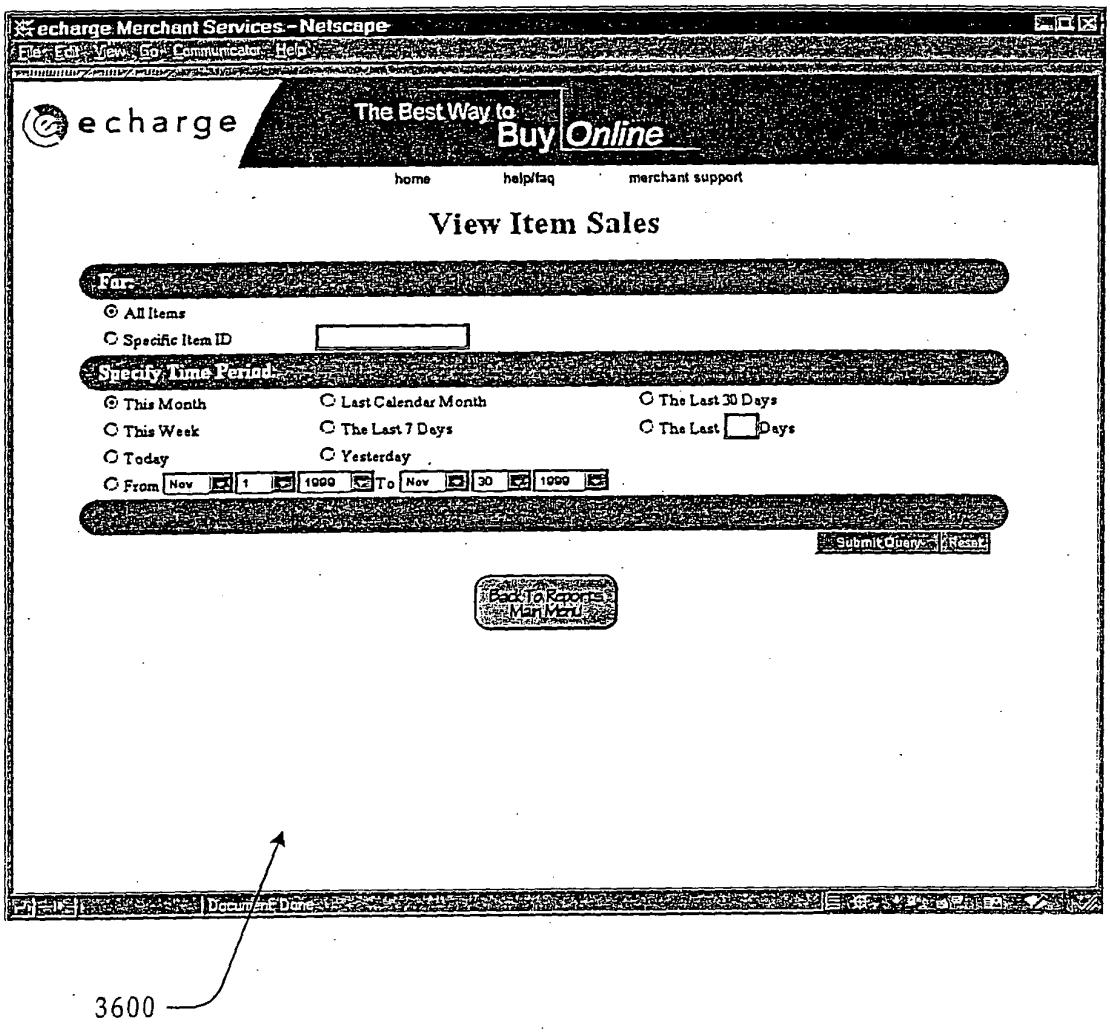
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
View Item Sales
For
All Items
Specific Item ID
Specify Time Period
This Month
Last Calendar Month
The Last 30 Days
This Week
The Last 7 Days
The Last Days
Today
Yesterday
From Nov 1 1999 To Nov 30 1999
Submit Query
Reset
Back to Reports Main Menu
Document: Done
3600

Fig.36.

echarge Merchant Services - Netscape

File Edit View Go Communicator Help

echarge The Best Way to Buy Online

home help/faq merchant support

Item Sales

11/01/1999 - 11/30/1999

Item ID	Item Name	# Of Units	% Of Units	% Of Sales	Total Sales
100037	MSFT FrontPage 98 Upgrade	1	0.04	0.03	49.00
100070	HP LaserJet Paper, 8.5"x11", ream	6	0.24	0.03	47.94
100071	Hammermill Laser Print Paper	19	0.75	0.11	163.21
100076	Hitachi Monitor MC6215	0	0.00	0.00	0.00
102521	Pizza and Baking Stone, 14x16	3	0.12	0.05	78.00
103900	Chrome Premium Belgian Waffle Iron, 2-c.	1	0.04	0.03	49.95
105615	Prankster s Red Hot Sauce, 5-oz.	1	0.04	0.00	4.95
105734	Blueberries n Cream Muffin Mix, 16-oz.	1	0.04	0.00	3.95
107960	Blue Oval Baking Dish, 14-in.	5	0.20	0.12	177.50
111859	Nonstick Cookware Set, 8-pc.	2	0.08	0.27	399.90
112867	Chocolate Raspberry Truffle Cake Baking Kit	1	0.04	0.01	9.95
117410	Smoky Chipotle Tomato Grilling Sauce, 12-oz.	1	0.04	0.00	5.95
119349	Corn Cheddar Cayenne Cheese Wafers, 8-oz.	1	0.04	0.00	5.95
119685	Hellfire & Damnation Hot Sauce, 5-oz.	1	0.04	0.00	4.95
126349	Nonstick Bakeware Set, 4-pc.	1	0.04	0.04	59.95
127133	Hi-Density Hard-Anodized Cookware Set, 7-pc.	1	0.04	0.31	469.95
128127	Red Chili Chipotle Cheddar Popcorn Seasoning, 5-oz.	1	0.04	0.00	5.95
130885	Bakeware Set for Kids, 5-pc.	19	0.75	0.22	322.05
139633	Wasabi Lime Mustard, 1.9-oz.	1	0.04	0.00	2.95
20-FILE-001	Kron 7z	0	0.00	0.00	0.00
20100	Jimi Hendrix Interactive CD ROM	2	0.08	0.03	49.90
20120	Eric Clapton Interactive CD ROM	6	0.24	0.10	149.70
20131	Alanis Morisette Interactive CD ROM	1	0.04	0.02	24.95
20150	The Wallflowers Interactive CD ROM	0	0.00	0.00	0.00
20160	Classical Guitar Standards Volume 1 CD ROM	1	0.04	0.02	24.95
20170	Classical Guitar Standards Volume 2 CD ROM	0	0.00	0.00	0.00
300-DA-001	Rubbermaid Pencil Palace[tm]	7	0.28	0.04	53.55
400-PA-001	HP Laser Black Toner Cartridge	772	30.50	25.76	38561.40
400-PC-03	TEK Pentium 133	0	0.00	0.00	0.00
AZ1000	THIS IS the description for the second item	133	5.25	58.75	87942.26
CTV93221	High-Back Executive Chairs with Arms	0	0.00	0.00	0.00
GAME 033	Blast Em Game Software	727	28.72	7.29	10905.00
GAME-033	Blast Em Game Software	17	0.67	0.17	255.00
RZ1000	THIS IS product description	19	0.75	1.42	2127.43
T-Shirt 001	T-Shirt of ClearCommerce Logo	729	28.80	4.87	7292.62
T-Shirt-001	T-Shirt with the cool ClearCommerce Logo	17	0.67	0.05	79.90
abc	test item description	24	0.95	0.16	240.00
def	test item description	6	0.24	0.02	24.00
pokemon fossel	Blast Em Game Software	4	0.16	0.06	88.00
Totals:		2531	100.00	100.00	149680.71

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Document: Done

3700

Fig.37.

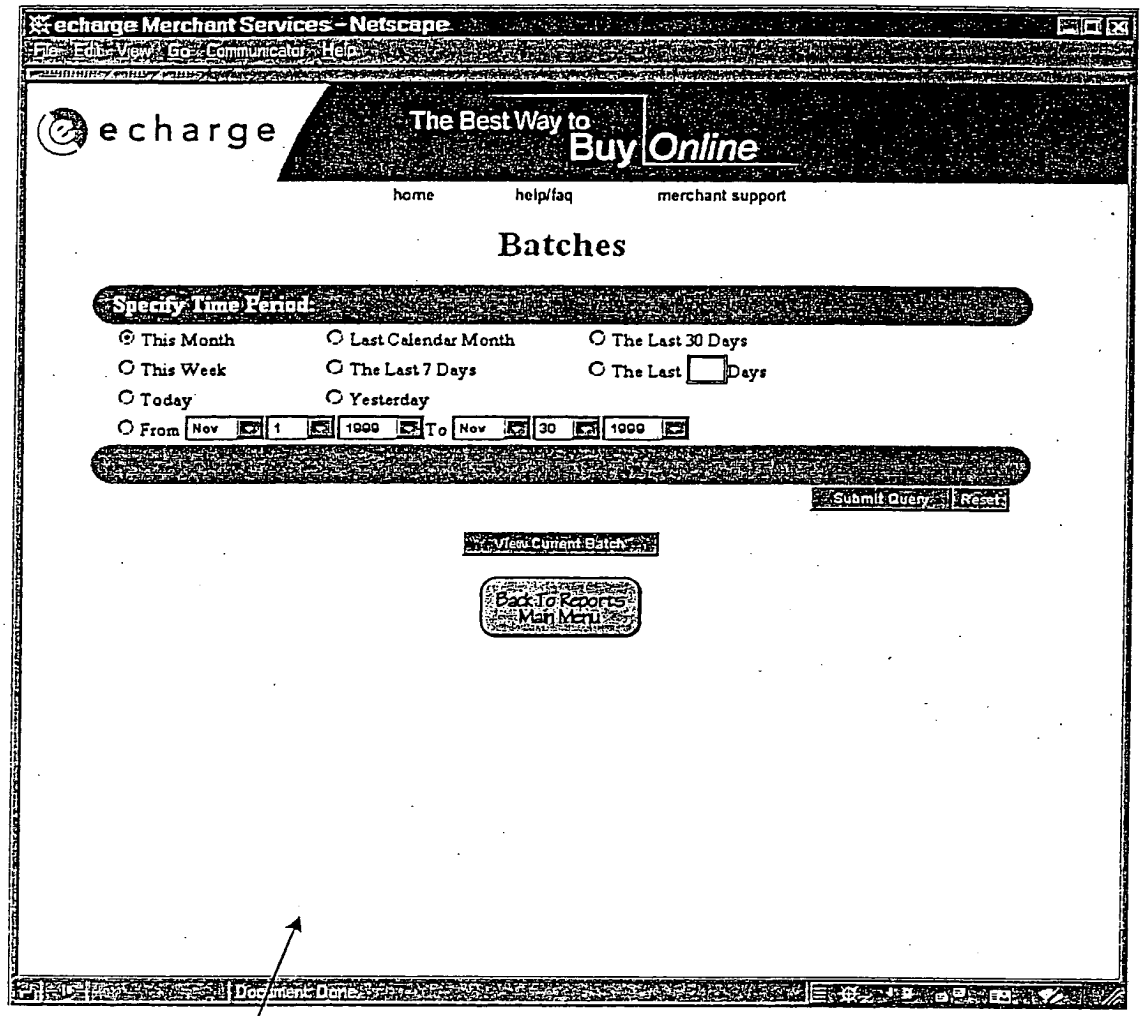
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
Batches
Specify Time Period:
This Month
Last Calendar Month
The Last 30 Days
This Week
The Last 7 Days
The Last Days
Today
Yesterday
From Nov 1 1999 To Nov 30 1999
Submit Query
Reset
View Current Batch
Back To Reports Main Menu
Document Done
3800

Fig.38.

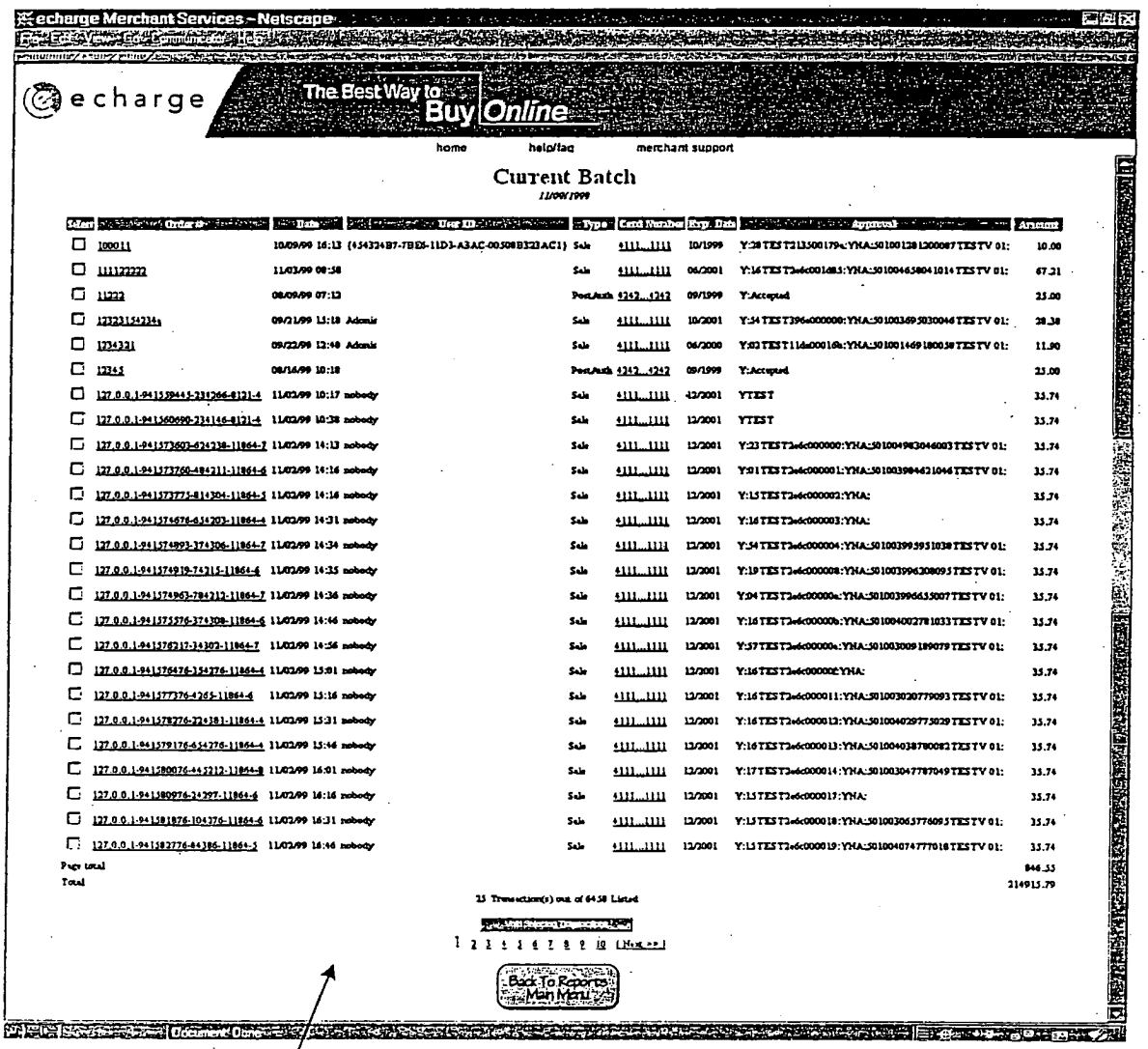
echarge Merchant Services - Netscape
echarge
The Best Way to Buy Online
home
help/faq
merchant support
Current Batch
11/09/1999
Back To Reports Main Menu
3900

Fig.39.

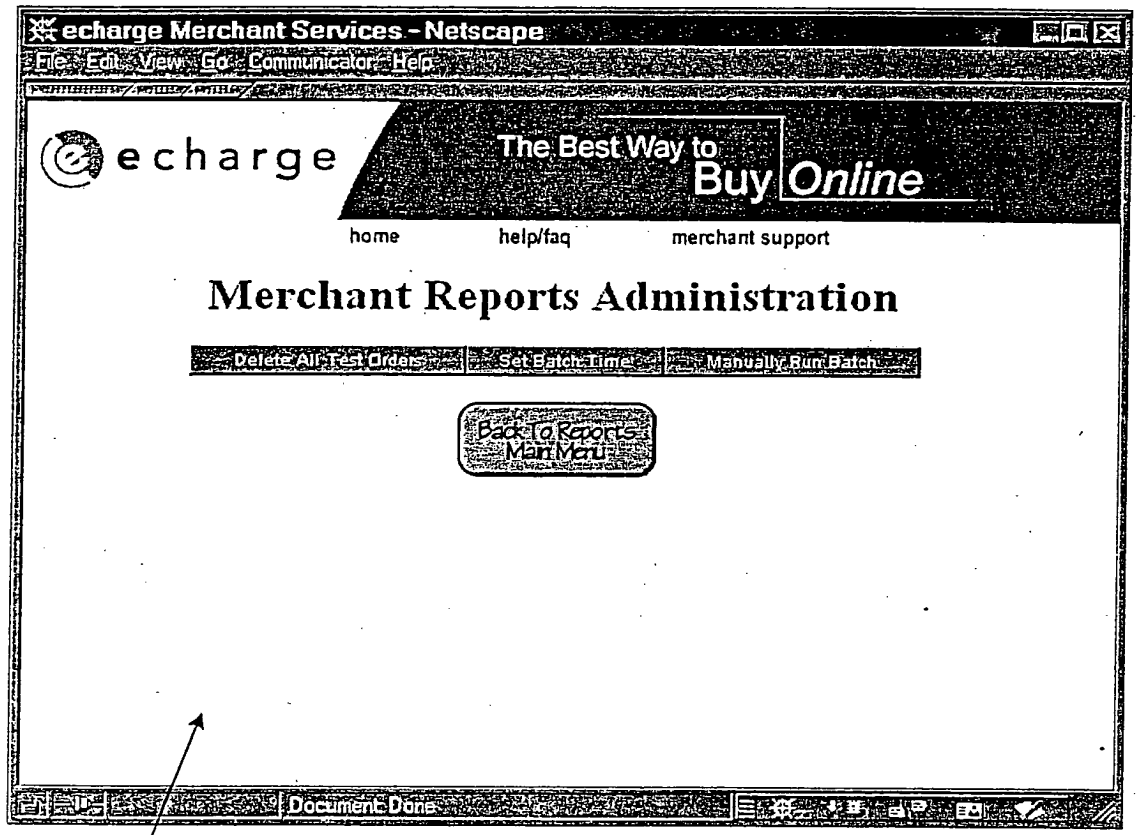
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
Merchant Reports Administration
Delete All Test Orders
Set Batch Time
Manually Run Batch
Back To Reports Main Menu
Document Done
4000

Fig.40.

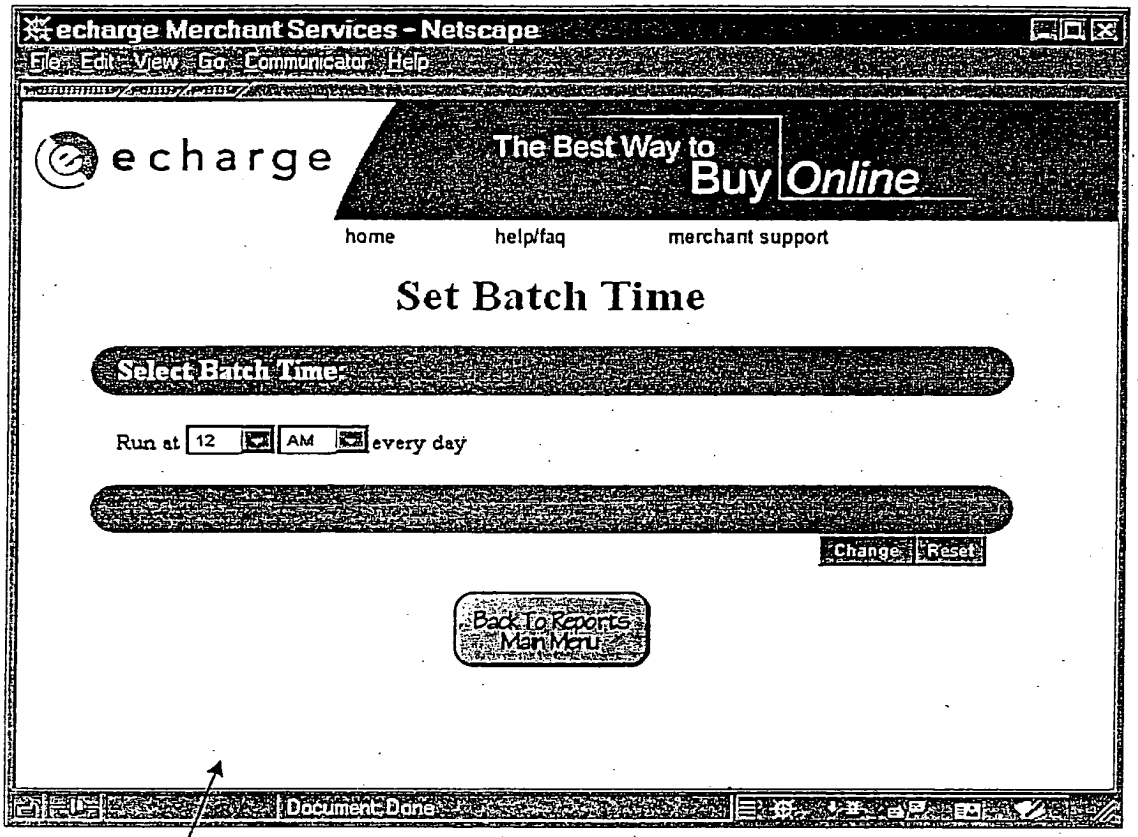
echarge Merchant Services - Netscape
File Edit View Go Communicator Help
echarge
The Best Way to Buy Online
home
help/faq
merchant support
Set Batch Time
Select Batch Time
Run at 12 AM every day
Change
Reset
Back To Reports Main Menu
Document Done
4100

Fig.41.

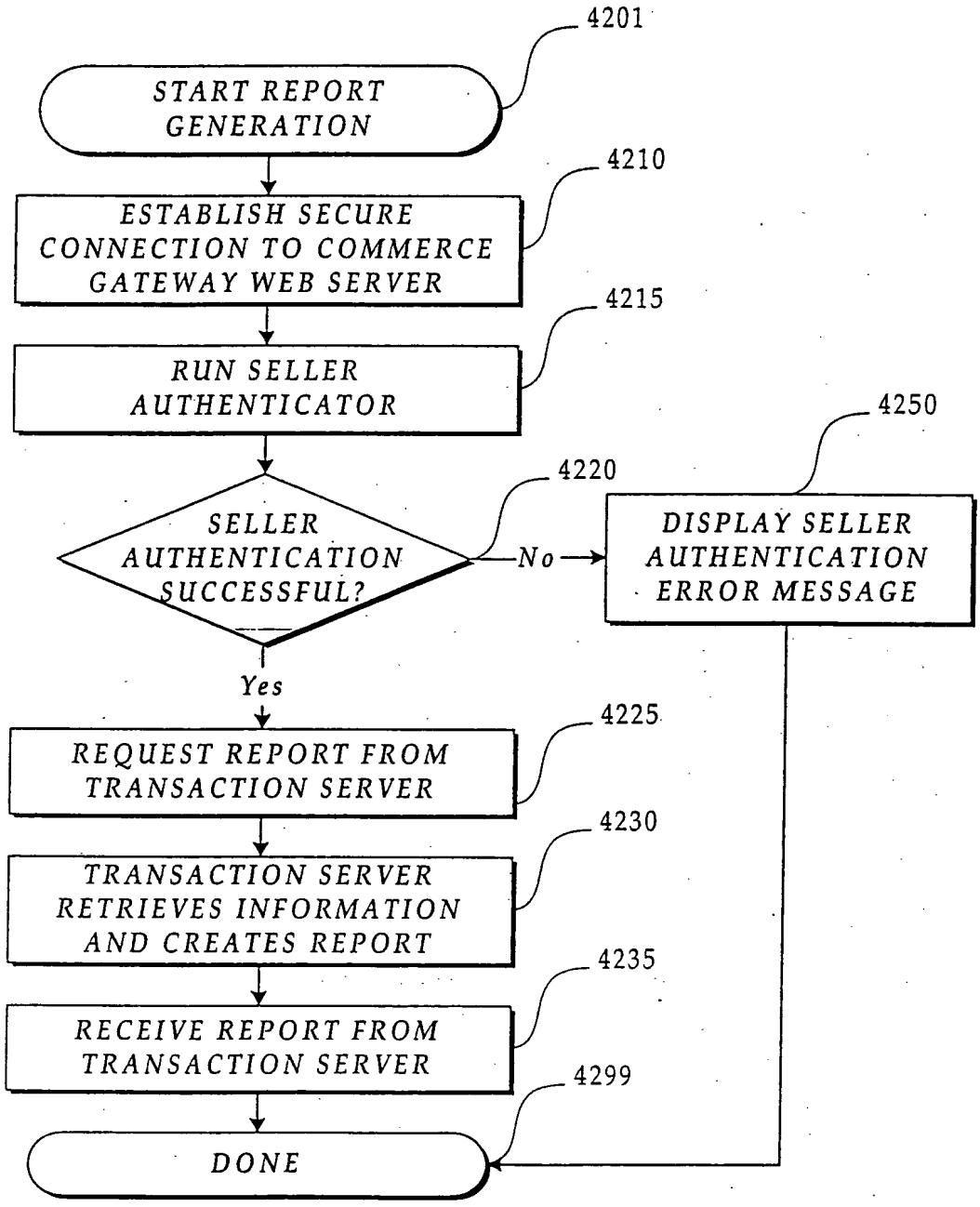
4201
START REPORT GENERATION
4210
ESTABLISH SECURE CONNECTION TO COMMERCE GATEWAY WEB SERVER
4215
RUN SELLER AUTHENTICATOR
4220
SELLER AUTHENTICATION SUCCESSFUL?
No
4250
DISPLAY SELLER AUTHENTICATION ERROR MESSAGE
Yes
4225
REQUEST REPORT FROM TRANSACTION SERVER
4230
TRANSACTION SERVER RETRIEVES INFORMATION AND CREATES REPORT
4235
RECEIVE REPORT FROM TRANSACTION SERVER
4299
DONE

Fig.42.